Archives QH 76.5.S6 U5 1933
United States. National Park
Service.
Southwestern
Monuments; monthly reports
5639

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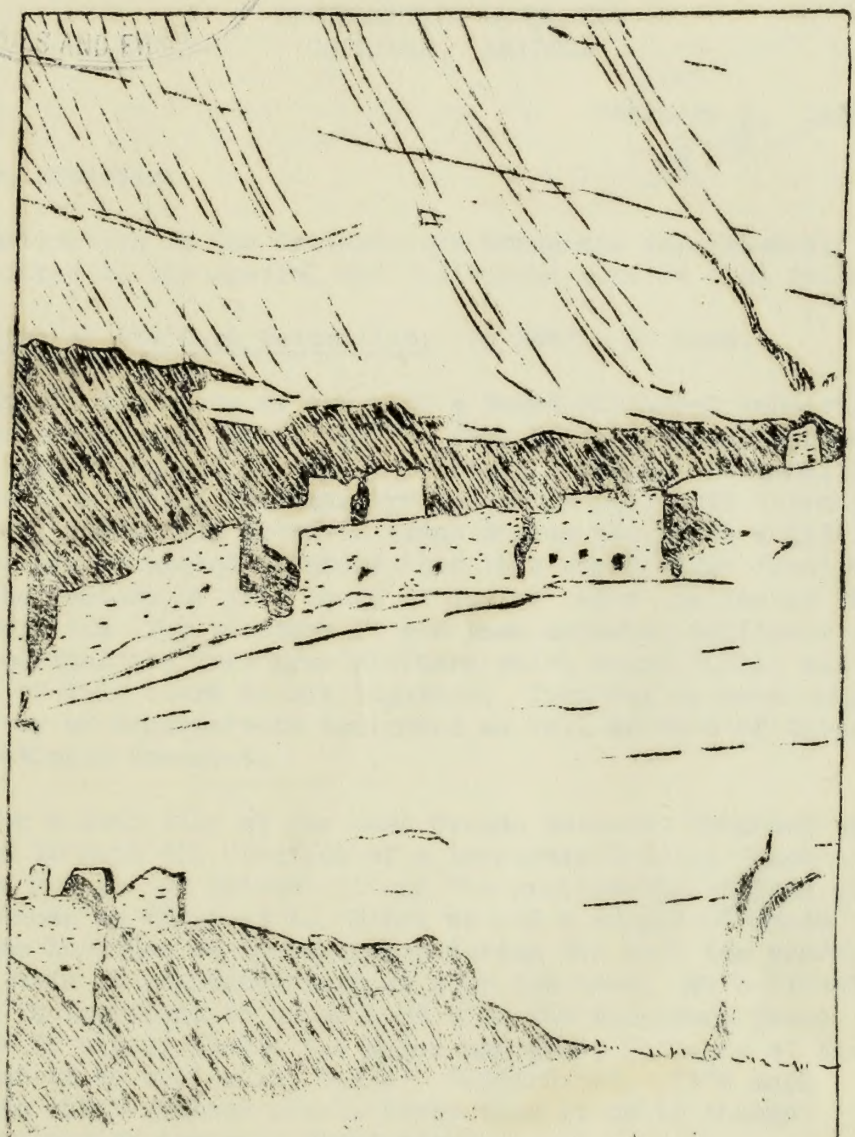

THE WHITE HOUSE
CANYON DE CHELLY.

SOUTHWESTERN MONUMENTS

MONTHLY REPORT JANUARY - 1933.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
SOUTHWESTERN MONUMENTS
COOLIDGE, ARIZONA

February 1, 1933.

Dear Mr. Director:

Activities in the Southwestern Monuments for January, 1933 are outlined in the special and individual reports that follow:

Activities of the Park Naturalist: By Rob't. H. Rose.

At the beginning of the year a Board of Survey consisting of Rangers Fish and Rogers and the Park Naturalist was appointed by the Superintendent for the purpose of bringing the condition and valuation of all Southwestern Monuments equipment current to January 1, 1933. Six or seven times during the month a little time has been snatched in order that this board might function. Since the members of this board of survey also maintains the guide services for visitors it has been somewhat difficult to find opportunities free from visitors which would enable all members of this board to sit together. Thus far we have completed the survey of headquarters equipment as well as that of Aztec Ruins National Monument.

For a long time at the Casa Grande National Monument we have had in mind the erection of a temporary lattice fence near the museum and between it and the prehistoric village site nearby known as Compound A. Since we had a supply of these panels on hand due to improvements during the past two years, we were able to construct this at very low cost. We believed that it is important to experiment with the temporary fence in order to wisely locate the gates and other features of the permanent adobe wall when, and if constructed. It's much easier to shift lattice panels about than it is to change adobe walls with concrete foundation.

Our real thought behind building such fence is the hope that it will simplify our problem of handling visitors. Since moving into the new museum quarters we have observed a tendency on the part of visitors to park in the parking area, get out of their cars and head straightway to the Ruins at 'break neck' speed without a ranger. This we figured has been due to the fact that from our parking area the ruins loom up nearby and visitors see no barrier between them and the object of their visit. We are experimenting for the purpose of determining the extent to which the new fence furnishes a 'mental barrier'.

The writer is a firm believer in thinking that most of this business of visitors parking wrong, running wild, getting into wrong places, not seeing signs, and all such problems are no faults of visitors themselves but are due to faults in or lack of facilities, improper location of signs, fences, gates, and etc., and other factors of this kind. A problem of this type is exactly what we're working upon:-we want to see if this fence will unconsciously conjure into the mind of the visitor the minute he parks that the natural thing to do is to come to our ramada and registration table before heading for the ruins. This will aid us in getting our parties definitely organized right from the start and will stop this business of having to overtake people headed for the Ruins in order to be of service to them. After these general arrangements are perfected so that the right thing to do is also the NATURAL THING to do then it is up to all of our personnel to give the promptest, most thorough and courteous service possible immediately upon the visitor's arrival.

I do not want to convey the idea that this problem has been exceedingly serious-it has not. As a matter of fact we could continue giving high class service without solving it in the way explained. However, we believe that in solving this problem as completely as possible it will be possible for us never to be compelled to literally have to catch a party before we can be of service. Solution of this problem will make for (1) organization of guided parties from the very start ;(2) encourage the ranger as guide to put forth his very best efforts; and (3) instill a feeling in the minds of the people being served that they are members of a supervised party. We're awaiting with interest the results of this experiment. The writer feels that it has already proved successful.

Copy for a mimeographed sheet on Montezuma Castle National is ready, save for preparation of a map and illustration, to be run off. About 200 of these will be mimeographed. They will then be revised before a final publication of several thousands is made.

I am pleased to acknowledge receipt of 18 lantern slides on Birds from Yosemite National Park. I am using these slides to excellent advantage in illustrated talks on "Touring our National Parks and Monuments". Lantern slide views of Crater Lake National Park and an airplane view of Pueblo Bonito were received from Field Headquarters. Both are excellent views and are of great help in these programs.

During January and including February 1st the following contacts were made through lantern slide talks:

1/3/33-------Attendance 20------Casa Grande Rotary Club.
1/12/33------ " " 25------Florence Woman's Club
1/19/33------- " " 24-------Pima Lodge F.&.A.M. #39.
1/27/33------- " " 225------Kennilworth School and Community.
2/1/33 ------- " " 300------Florence Union High School and Friends.

A fine start on a museum collection has been made at Tumacacori National Monument. The old adobe structure formerly used for rangers quarters has been thoroughly cleaned and re-painted inside. As the layout is at present the collection consists chiefly of (1) fine desert views, colored, on which the art work has been done by Mrs. Boundey; (2) a collection of scores of Indian baskets, principally Pima, which is the personal property of Custodian Boundey; (3) and many splendid relics of early Spanish history which have been secured in the locality by loan, gift and discovery. During the month we had an opportunity to visit Tumacacori and were agreeably surprised to find so much work done toward collection and arrangement of the material.

REPORTS OF INDIVIDUAL MONUMENTS: (Faris).

"Visitors for the month total 52. This drop of 25 under last year for the same period might be accounted for in that this season has been consistently cold with some snow of the light fluffy type. On the other hand, last year the exceptionally heavy snow of wetter nature made for sleighing and on two Sundays a local Sunday School class took advantage of the weather to sleigh in our unexcavated area.

"The normal run I would say is higher this year than last. Local visitors have dropped, I think, due to extreme cold but this decrease in local travel is more than offset by out of state visitors who can now reach us via the new Million Dollar Highway.

"Richard Nelson, Secretary of the Durango Chamber of Commerce, resigned recently. I have assured the man recently appointed of our willingness to cooperate. One of my old school teachers was made president of the organization at the same meeting. This should make for very cordial relations between that organization and our monument.

"This month has brought forth several letters from individuals asking about the ruins, employment and other matters. I have worked on various forms of advertising and I inform you with pleasure that the Chamber of Commerce of Aztec is much pleased with a calendar similar to the one I am sending to you. It is suggested that through some fund it be made possible to place some twenty or more at advantageous points. I am also working over lecture material which I hope will be of service this summer.

"Boss, the matter of the Abrams tract comes up again. I would like very much, since we will take the area over in a few years, to offer it to some one, giving Abrams first chance, with the understanding that it is to be planted rather heavily with alfalfa and a good nurse crop the first year. I would also like to recommend that barley be used for this nurse crop for it is equally as good as oats for feed. It also does not have nearly the tendency to grow wild as does oats and I know of nothing worse than wild oats all along the ditch banks.

"Grant the individual the entire crop for this first year, after which time we reserve the right to plant trees as we wish. This should also carry with it the understanding that if the the trees are properly protected, he may have the hay for the next several years. By carring out this plan we will have a nice looking field and at the same time be enriching the soil rather than removing the food elements from it. Through following this with grass and hay sow and more trees we will have a fine picnic area about the time we expect the whole plan to materialize.

"If we carry out this plan I think we should pay the water on it. It should be expressly understood that the area, ditches and fences are to be kept free from weeds. I would like an expression of opinion from you on this whole matter.

"The Aztec Publishing Company complains that they are not receiving their monthly report from you. Is this an oversight, mistake in the mails, or due to some other reason ?

"With a hearty greeting to all from all of us, I am
Most cordially, Johnwill Harris."

Capulin Mountain National Monument:- Mr. Farr on Jan. 26th writes:

"I have the following report to make concerning activities of Capulin Mountain National Monument: We have had approximately 100 visitors this month so far. The weather has been generally fair and mild all month and I have the road in splendid condition.

"Quite a number of people seem to be touring the country just as they do in the summertime. Of course there is not the volume of sightseers but the number is large for this time of year. Never before in the last forty years has this region seen such mild climate but doubtless we will pay for this in the early Spring. I am especially glad that our sister state, Arizona, is getting plenty of moisture for it will mean much to the range.

"I want to stop right here and commend every custodian, our Super-Custodian and his Aid for the unmistakably better monthly report for December; also the "Shop Talk" by the Boss was sure good. I believe as things grow deader our "Good Old Gang" is getting more life in it than ever,"

Casa Grande National Monument: For January of this Year Mr. Palmer wails as follows:

"Starting these monthly reports lately reminds me of those old Herpicide Hair Tonic ads that used to read "Going", "Going", "GONE". Each month I have to report a decrease in visitors. It makes me wonder if this depression keeps up long enough, if I will one of these months have nothing to report but "GONE". January of last year we reported 2210 visitors; this January we record 1877 visitors, a loss of 333 or 15%. These 1877 visitors came in 537 cars from 41 states, the District of Columbia, Alaska, Canada, Ireland and Mexico. Tabulation shows 58% were from Arizona, 11% from California while the remaining 31% was supplied by the rest of the states represented. Each visitor, or group of visitors, was personally conducted on an educational tour of the Ruins and the Museum. A total of 220 tours of the Ruins was made and 205 parties were given lecture services in the form of guided trips through the Museum. We can take hope in the fact that the sharp decrease was most marked during the last half of the month during which time the weather was exceptionally bad

"Speaking of the weather, we have had lots of it and various kinds. For the first time in a decade this section was visited by a light snowfall on the 21st. It fell during the night and lasted until Noon the next day. It rained an unusually large number of days and the last half of the month was especially disagreeable. The following weather summary is compiled from our Weather Bureau Station at this monument:

Maximum Temperature-----74-----Jan. 9th
Minimum " -------22------- " 3rd
Greatest daily range------46------- " 5th
Days with precipitation----7
Total precipitation for the month--1.89 inches
Greatest in 24 hours----------1.05 on the 21st.
Clear days----20; cloudy---4; partly cloudy---6.

"Park Ranger Edgar Rogers was transferred from Tumacacori to this monument on the 15th to relieve Custodian Hurst Julian who was called away to assist the General Land Office in Santa Fe, New Mexico, on land transfer matters at Chaco Canyon National Monument.

"Work at this monument during the month has only been general and has consisted of minor repairs to buildings and Ruins; rearranging

material in storage buildings making it easier to find tools and equipment; invoicing all tools and equipment; and getting everything about the monument better organized.

"The unemployment situation in the neighborhood has not changed. There are applicants seeking work every day. It is hoped that final plans for our road work can be agreed upon at the very earliest possible date so that it can be started thereby relieving somewhat the conditions on the neighborhood.

"Col. Arthur Woods, Chief of Mr. Rockefeller's staff of administrators, his wife and two children visited the monument for a very short time on the 28th. Col. Woods was on his way from Tucson to Phoenix and had an appointment in Phoenix for six o'clock and could spend only a half hour with us. Mrs. Woods had been with us before.

"During the month we were also hosts to Mrs. Wm. Wriggly, Jr. and Mr. Patrick, Chairman of Board of Directors, Catalina Island Transportation Co."

El Morro National Monument: Mr. Vogt comes out from behind a snow bank to write under date of Jan. 24th as follows:

"Dear Pink: My report is late in getting away this time. The three big winds accompanied by snow which visited this 7,000 feet above sealevel region, tied me up down at the ranch making it impossible to get off even a short letter to you.

"The month has been for the most part clear and cold with a series of stiff storms. These storms came mostly at night and did not interfere with grazing of live stock to any great extent. Auto travel for sightseers is at a standstill. Only mail trucks, ranchmen and government men in charge of airports, Indians, national monuments, forests and etc. ventured over the drifted caminos in a country where roads are always uncertain and have never known the blessing of maintainence crews.

"At El Morro I lost the loss of Monk Adams, our nearest neighbor, who moved away to Texas. He was always a good worker for us, a friendly neighbor, and a source of reliable information. I have arranged with an old Navajo, Rafael, who lives just back of the monument, to go around the monument fence, take a look at gates, and visit the ranger's cabin and the inscriptions. He is an old Indian who speaks no English but instead, that strange tongue acquired by Navajos known as Navajo Spanish . So being unable to communicate clearly and well in his own language "Dine Bizad", I throw my Spanish into Indian gear and thus I get along with him very clearly and definitely. Rafael used to herd sheep for me so I know him well. He needs a little help too. I feel he serves well enough during these cooped up months to act as a scare crow against some of those who might try to steal some

some boards, or a window from the cabin or do us damage.. He has an all-seeing eye with keen observation of tracks. He would scare badly some tourists, however, as he is a wild looker in his torn pants, old shirt, gray hair held by a bandana head band.

"I have received a number of interesting letters, one from Engineer Kittredge about our erosion problem, and a fine letter from Director Albright.

"I wonder if others of the Monuments Service would be interested in knowing of Rev. Mitchell's (Indian Wells, Arizona) new Navajo-English Dictionary ? There is also the Quivira Society, U. of Southern California publication, Los Angeles, of the First Expedition of Don Diego de Vargas into New Mexico in 1692."

Gran Quivira National Monument:- From Mr. Smith over Quivira way we have the following report dated January 20th:

"Dear Boss: for the month ending January 20th, 1933 we have had 64 visitors &&&&&&&& entering the monument in 6 cars, wagons and otherwise. The travel has been exceedingly poor for the past month due to the bad condition of the roads. The snow that fell the 13th of December has been melting enough to keep travel practically suspended in this part of the country. There is still snow on the ground and it is snowing again today.

"Mr. Yrisirro and his party of treasure seekers returned to the diggings the 4th of January after spending Christmas at their homes in Albuquerque. They resumed operations immediately upon their return. Mr. Yrisirro states that they have the tunnel cleared and timbered about 36 feet back in a northwesterly direction nearly straight toward the New Mission. At a point near forty feet Mr. Yrissiro expects to intersect the main tunnel from the East, in which he expects to find the treasure."

Montezuma Castle National Monument. From Jack at Montezuma we have the following report of Jan. 26th:

"Dear Boss. The first part of our January tourist month was fairly busy as the weather was quite nice. But Jan. 16th saw the end of this fine weather for then it started to rain and it snowed or rained from then on to the end of the month. Therefore we are able to report a total of only 318 visitors. Most of these came from great distances to see our monument. The Dude Ranches have been running at capacity and have been bringing most of their guests to the Castle.

"We arrived here from leave as per schedule coming through on the northern route and I can assure you that it isn't so good at this time of year. In fact we fought snow from east of Albuquerque to Prescott. Roads around here are also in bad condition. Even the two roads to Flagstaff are now closed.

"The Curry's have made the best of some of the quiet days while I was gone and have fixed up their quarters very nicely.

"Heard yesterday that there was a large rock slide at Montezuma Well which was caused by excessive moisture. I have not yet been informed as to the damage produce but we home no scenic harm was done".

Petrified Forest National Monument: The report of Superintendent Smith which is transmitted directly is also included herewith:
Dear Mr. Director:

"The narrative report on the Petrified Forest National Monument for the month of January, 1933(Dec.28-Jan. 27), follows:

"The bitter cold weather and storms reduced the activities in this monument to a minimum. A Board of Survey was appointed to inventory and value all articles of property and equipment. This Board consisted of Acting Chief Ranger Frank J. Winess; John H. Edwards, Foreman; and Park Ranger T.C. Miller. This work was completed about the middle of the month.

"Sub-zero temperatures prevailed from Christmas until January 15th. During this period the thermometer registered from zero to 16 degrees below everynight while towns and villages in northern Arizona at much higher altitudes were having comparatively mild weather. In fact, during this period Holbrook, 19 miles west, was the coldest town in the United States. Mark Twain once said that "everybody talks about the weather, but nobody ever does anything about it."

"However, in this case "somebody was going to do something" for I am informed that scientists were on the point of coming to Holbrook to investigate had this unusual condition prevailed much longer.

"The roads have been kept open and free from snow by Foreman John H. Edwards assisted by Chas. E. Fisk

"The personnel at this Monument consists of the Superintendent, 3 Park Rangers, i temporary Park Ranger, and 1 Foreman. One Park Ranger is stationed at the Painted Desert, one at the Indian Ruins and Photographs, one in the Museum, and one divides his time between the Greeting Station on U.S. 260 and Patrol.

"Very little wild life has been noted except the usual coyotes which we have with us always. A badger took advantage of the mid-month thaw to promenade near headquarters and placed himself on exhibition in a culvert all the afternoon.

"On January 6th, by agreement, I met with two representatives of the State Land Department to examine, value, and arrive at some equitable basis of exchange for 10 sections of land (State) in the Painted Desert Section. I also made a trip to Phoenix on this business which has been successfully reported. This was the only official trip made by any officer in this Monument during the month.

"Our travel came from every state in the Union except Florida, Louisiana, South Carolina, Virginia and Vermont. France, Japan, and South Africa were represented. Among visitors were Mr. and Mrs. H,M.

Sage of Mesa Verde National Park and Mr. Walter Henderson, the storekeeper there. Mr. and Mrs. Finch of the Yosemite dropped in. Mr. W. R. F. Wallace, Associate Highway Engineer, B.P.R., was in on the 22nd and 23rd discussing road programs.

"A tabulation of the travel follows:

By private automobile---------	cars	358	passengers	1,002
Previously reported----------	"	3,565	"	10,034
Travel to date----------	"	3,923	"	11,036
Painted Desert Section-------	"	912	"	3,292
Previously reported----------	"	2,648	"	8,317
Total to date----------	"	3,560	"	11,609
Grand total for month--------	"	1,270	"	4,294
GRAND TOTAL TO DATE ----------	"	7,483	"	22,645.

A more detailed table showing comparison with last year is attached."

Pipe Spring National Monument: Mr. Heaton writes as follows on 1/25:

"Our visitors for the month have numbered but 45, but among them was Mrs. Ed. Wooley who lived here from 1877 to 1890. In going over the place with her I learned of many things I wanted verified as to corrections. The only things different she had to state was that in the lower house and the east room there was a lumber floor and also a lumber camp house to the east end of the ponds. Mrs. Wooley expressed her sincerest appraciation of the fact that the Old Fort is being preserved and protected.

"We have had all brands of weather since my last report. Temperatures have been as low as 12 below zero and up to 60 above which melted most of the snow. The last ten days have been stormy with snow coming by fits and jerks like summer showers. At present 4 inches of snow are on the ground and in the mountains it is reported that the snow is two feet deep.

"The wind has also been unruly this month. It seems it comes from all directions at this point on the mountain. On the 17th it blew from the northeast drifting the snow when at 1:30 it suddenly changed to the Southwest twice as hard bringing a terrific blizzard lasting about five hours. Then a change to the north cleared the sky of all clouds for the night and the next morning the wind came from the South directly.

"There has been an unusual variety of birds for this time of year. This month I have noted feeding around the meadows, yards and buildings, robins, blackbirds, sparrows of several kinds, hawks,

owls, one eagle, woodpeckers, wild ducks and a snipe.

"I have added to my collection of relics one old wooden plane, an old grass knife, a potato grate hand made and used at Orderville, Utah when the United Order was practiced there in 1880's for the making of starch and yeast. I have the promise of a bullet mold when I get things &&&&& fixed up to take care of such of things."

Mr. Heaton has a fine program of museum development under way. Some letters have been exchanged between him and the Park Naturalist and some promising results are assured.

Tumacacori National National Monument: On the 25th Mr. Boundey reported as follows:

"Visitors for the month total 712. During the past few days both the weather and the roads have been unusually disagreeable, and yet the month shows an# increase over last year.

"The mountains are still covered with snow and the thermometer registers between fifteen and twenty above during the night. The buds on the Cottonwood are beginning to swell and the elderberry trees are all leaved out so Spring can't be very far off.

"We were glad to have a visit from the Casa Grande folk including Mr. Pinkley and his mother; Mrs. Palmer and Bob Rose and the next day Hurst Julian. They came over to inform us that they were borrowing our ranger and family for a few weeks.

"California parties have purchased a lease on 90,000 acres of mineral lands and intend to do considerable development work the coming Spring. They expect to reopen the Salara Mine, one of the mines worked by the Padres of this Mission. In Father Xarch's diary he mentions a visit from the Father Visitor to Tumacacori and during the banquet in his honor the Father Visitor noted the absence of any salt cellar on the table. Straightway Father Xarch called two of his silver workers, sent them to the Salara and they there shaped a salt cellar of silver thus giving the mine its name."

January Supplement
To The
Monthly Report
***
Dealing with persons, news
And General Shop
Talk.
***

This month we are going to give the place of honor, if any there be, in this section of the report to Mr Newell F. Joyner at whoes allusions and aspersions and definition of a Park and a Monument we cast some stones in the last month's report. He comes up smiling this month with a good bit of shop talk, most of which, by the way, rings the bell, and convinces us that a real Park man , by putting in about 20% more time and 10% more pep and doing without about 15% of the things that are counted necessary in a Park, will make good on the average Monument. Now let's go

"I have recently received a copy of the Report for December of the Southwestern National Monuments, and have read it with great interest. If possible for you to do so, I should like to have our name placed on your mailing list to receive this publication continuously, for I find much that is of value and help to me since we have some problems in common.

"You probably have been expecting to hear from me as a result of the somewhat lengthy comments and criticism of an observation as to the difference of Monuments and Parks which I forwarded to the Director some time ago.

"Don't be surprised when I say that, as a definition, the one under discussion was a failure as it was worded. I still hold to the idea, however. In the first place the failure is due to the fact that apparantly every one stubbed his toe on the 7th word ---"small"; and in the second place apparently no one got the idea I was trying to put across. So I discard the idea that it is a definition.

"As stated before, I do not retract what I have said, for as near as I can see the matter now, the statement is as true in every respect, (as much so as generalities can be true). As to the word "small, or rather the "relative small" phrase with emphasis on the last word, I cannot see that my critics took the time to investigate the facts. I find(using the tables at the end of the Director's Report for the 1932 year) that the following averages can be determined:

Average size National Parks	382,602.8	597.8	sq.mi.
Average of National Monuments	60,354.36	94.3	" "
Average size National Monuments administered by N. P. S. -	115,729.72	180.8	sq mi.

And furthermore that only two Monuments are larger than the average size National Park."

"The Boss here rises to remark that Brother Joyner was right in his statement if he meant that the average National Monument is smaller than the average National Park

"Again referring to the tables aforementioned, we find that for those monuments where a record is available of attendance for this past

year, that we served an average of 1.91 visitors per acre (or an average of 2.65 visitors if you count in the attendance at the Sesquicentennial Celebration) while the National Parks served only 0.35 visitors per acre. Of course there is the possibilities that since the comparison is not based on complete figures in the case of the Monuments, there would be a criticism of it. Let the personal of our Parks think of us as relatively small areas, and then watch their eyes "bug out" when they find that after all we have the same problems that they have and that there is not such a vast difference between the two areas in many respects as they had previously thought.

"I feel as you do that size is not the distinction between a Monument and a Park, and it was for that purpose that I drew up this definit which has caused the comment. I feel that in the Monuments an opportunity exists for the permanent employee to really make the most of his opportunities in Service and that he is not limited in this opportunity by a vast amount of administration details which is the case in most Parks, I believe. I had arrived at this conclusion as a personal opinion I knew that it represented the difference between Yellowstone and Devils Tower, as you so aptly put it in turning down the proposed definition. But this fall, as an opportunity came for me to read a number of items either from or coming through your office, appearing in the typewritten monthly reports, the Bulletin, and lastly a memorandum circulated out of the Director's Office, I reached the conclusion that I at this Monument, was not the only one who was having this splendid opportunity for Service ---- this opportunity for the "Pioneer Spirit" as you have put it. Emboldened by your comments, I set my own opinion onto paper and submitted them to the Director in my comment on the above-mentioned memorandum from the Director regarding the work of the Southwestern Monuments and their personnel. This will give you the point I wanted to put across in the unfortunate definition and show you the basis of it, and show how you were really the one who inspired the definition.

"As to your comments on a definition for a National Monument, now that we have buried mine, I have never been able to see that the definiti in the basic act satisfactorily differentiated a Monument from a Park. The fore-part of the definition is clear enough, but" --- and other place of-------scientific interest" would certainly include (in my opinion) Yellowstone with its Geysers Hawaii and Lassen with their Volcanos, Rainier with its Glaciers, Carlsbad and Wind Cave with their geology of underground water Grand Canyon with its marvelous opportunitise for Geological Study, and other and notable scientific phenomena that are included in areas designated as National Parks. For that reason I cannot see that the basic act helps us to find a perfect definition of a National Monument.

The Boss here rises again to remark that of those cases pointed out, if the reservations are not primarily inspirational, then they shoul have been served as Monuments and not as Parks! But for the Love of Mike, don't let a Park man find out that we consider his Park worthy to be put among the Monuments! He just simply doesn't look at it that way!

As to your proposed definition of an ideal National Park, I will agree with it if it is not intended to serve as a means of differentiating a Park from a Monument. If it is, I cannot agree, for Devils Tower

fits the definition perfedtly, and I cannot conceive of it as a National Park. It is"an outstanding work of Nature" (nothing else like it: it is massive--in fact there are few people who comprehend its size) "which is first of all inspirational" (this truly fits the Tower; President Roosevelt in the act of dedication called it a "great Natural Wonder" which seems to me a way of saying that it was "inspirational" as you have used the term. Perhaps my way of understanding "natural wonder"would differ from yours, but the fact remains that the majority of the persons who view the Tower are inspired by it first of all, they may gain something from it from the educational standpoint and but few of them avail themselves of the recreational features. It seems to me that the Tower would perfectly fit your definition. Then why shouldn't it be a National Park Instead of a National Monument? If that can be answered, I believe that in the answer might lie one of the chief differences between a Park and a Monument.

Here the Boss rises to remark that Mr. Joyner has him on a sort of spot, for, be it to his shame and he admits it, he has never seen the Tower. Nevertheless he is going to hazard the guess that it is not "Inspirational"within the meaning of the word as he used it. I don't mean inspirational of 'isn't it wonderfull, let's get a picture to take home to show the folks, how far is it to the next town where we can can get good camp cabins?' Merriam describes the real inspirational Park when he said (I quote from memory) "These Parks are the altars across which we can worship an ever-living God." Personally, on the rim of the Grand Canyon, I have heard a man talking to himself as he looked off into that vast void and forgot that there was another little human louse near enough to hear him, and do you know what he was doing? Swearing! All the words he could lay his tongue to, and with tears in his eyes! Is your Tower in this class? I have heard seven or eight hundred visitors, chattering like magpies, be struck dumbas they walked under that curtain into the King's Chamber on the old trail into Carlsbad Cave, and, without any orders from the rangers, they will begin talking in whispers. I have been with one of the few men in the Service who is justified in wearing more service stripes than myself, at the foot of Capitan. We had stopped his faithful Ford and we sat there for a minute just looking at that half mile of granite sticking up into the air, and it was big, terribly big; I didn't have anything to say. Finally he said it:"You can talk all the geology like we have been talking, but after all, here is where your science ends and Almighty God begins." Can you say these things about your Tower? That is what I mean by "Inspiration" If you can prove such inspiration as this about your Tower, then you have a National Park and fifty or a hundred years from now, the experts will put it in its right place and be laughing at the ways we had things all tangled up in these days when thinking is at a premium.

Dropping back to Mr. Joyner.: "In that connection, why was Carlsbad changed to a Park? --- the features did not change in the least to warrant its change in status. I am absolutely ignorant as the the 'why' of the change, having unquestionally personally been provided with the reason that the change was due to an increase in administrative problems: but now that the question has been brought up, I should like to know the actual reason."

"Personally discarding what the ideal might be, as we must, in our endeavor in our effort to find phrases which differentiate a Park from a Monument, I have come to the conclusion that the only definition lies in the manner of creation, whether by Congress or Presidential Proclamation."

Since the Congress has thus far done a pretty poor job of Park picking and the President has done a poorer one of Monument picking, as evidenced by the number of Monuments which have been afterward changed into Parks (Grand Canyon, Carlsbad, Bryce, Grand Teton, Zion, etc,) it looks to me to be very necessary to have some ideal of a Park and a Monument which might govern these gentlemen who are so often wrong as evidenced by the change from one class to the other. At present do you know we have no definition of either a Park or a Monument which has ever been officially endorsed by the National Park Service?

"Please believe me when I say that I am delighted with this opportunity to exchange views, for perhaps we can start a movement which will end in the dissapation of the larger areas serving a larger number to look down upon the areas of lesser size or numbers. I resent the attitude of some of the personnel of the Service to look down upon the Monuments ---- for if those persons only knew it, their opportunities for Service would be greater in the Monuments. There is a need for a common name for all the areas regard-less of method of creation, administered by the Park Service. Would it be possible that an appeal to the personnel of the Service would bring out such a satisf ctory name, even tho' the general acceptance of such a name would require Congressional action and a number of years educating the public? Such an appeal might be made through the Bulletin and might at least give us an opportunity to bring out the facts that you have stated as to the largest area under the Service being a Monument, an and other facts wherein we of the monuments feel that we have it over those of the Parks."

"Newell F. Joyner"

Again the Boss rises to remark that most every one in the Service has been trying for the last fifteen years to hit upon some such general name as Mr. Joyner asks for above, or at least some differentiating name for what we now call Monuments which does not sound quite so 'tombstony' The net result of fifteen years of pounding along these lines have been loud, hollow 'tunks' from the heads thus far examined.

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We had another mighty nice letter from Assistant Custodian Without Pay, Jean Griffin, who writes as follows about the Chaco Canyon on January 10, 1933.

"Dear Na-tohn-ne:

I hope 1933 finds you and your Hogan filled with all the joys that this new year can bring. Your Chrismas Card was lovely and I want to say that I was very interested in reading the last report. (Let the Boss say here that the hand painted Christmas cards which Miss Jean sends out are gems of art, carefully preserved by any one lucky enough to be on her mailing list)

The Chaco had its first fall of snow just before Christmas and it is still with us, this, however, has not hindered the tourists

as I have had a number of parties through the ruins. The Travel has been rather light but steady and this is unusual for this time of year.

I regret to inform you of what is to follow, but the other day I paid a visit to the Julian Hogan (official Custodian's residence), and found, to my utter surprise, a leak! Now who is to blame? The leak is in the same old place on the west wall just where the water trough is. (The joke here is on the Boss who issued instructions as to just how to patch this leak which has been giving us trouble for about four years. I don't know as much about patching leaks now as I did last summer, Jean!)

The lowest temperature in the Canyon was 13 below, the highest being 37 above. All in all the days have been quite nice so that I made several studies about Pueblo Bonito accompanied by my new camera which I received for Christmas. The ruins are truly a beautiful sight all draped in their white robes.

While on a recent tour through Pueblo Bonito I discovered a wall which had given away. This is due to the snow melting and running down the inside of the wall. Otherwise everything else seems to be holding up in great shape."

Later on in the month, we again heard from Miss Jean: "Mr. Julian and Mr. Barry, of the Land Office arrived day before yesterday, and we enjoyed seeing Mr. Julian around here again. It seems like old times. I was hoping Mrs. Julian would come too but Hurst tells me she is enjoying a visit with the Smiths at the Forest and will later go on to California. Mr. Julian also informs me that you have been through quite a seige of the flu. I am very sorry and I trust by this time you are feeling like your old self again. Why don't you take a little vacation and get away from the grind of things? I think it would do you good, though it is hard for the Southwestern Monuments to get along without you for any length of time. We are all imbued with your splendin spirit. (Which, although a lot of soft soap is nice to take.)

Somehow I feel that we are going to have a great many tourists to our ruins here this summer. Of course things are quiet now and there is not much in the way of news to write you. I think travel will pick up a little later on, it is always so at this particular time of the year.

The weather is lovely right now and there has been a considerable rise in temperature. We have had just two little flurries of snow, only a trace. You knew that I had charge of the Weather Bureau Station here& and now it seems everyone consults me on what Old Man Weather is going to do from day to day.

I have been spending my time reading and doing a certain amount of writing. I am reading Cooper's report, page by page and I certainly find it most interesting and instructive. What would you think, Mr. Pinkley, of having a fairly large drawing for our Pueblo Bonito Museum of the Pueblo showing how it looked during the time of its occupation? Jackson, as you know, made an imaginary sketch. I thought we could use that to go by. I also thought of doing

this myself or having someone do it. But before I did so I would like your advice on the matter. I haven't had an opportunity to discuss the matter with Mt. Julian as he has been busy ever since he arrived here.

The last Monthly report was a good one and full of interesting topics, to say nothing of the artistic cover, done by the artist, Mrs. Julian. I enjoyed reading it, in fact I read it to members of the family who shared the enjoyment with me. I am keeping every report and some day I shall have them all bound in memory of my association with the National Monuments of our great and wonderfulsouthwest. I like these reports for the simple reason that they are spontaneous and there is an intimacy about them which makes a great appeal to those who are interested in our National Monuments of this country and who are more or less identified with the Monuments and with the Service."

Thank you very much, Jean, for your kind words. Not a single one of these reports ever goes out that doesn't leave me under the impression that I have said the wrong thing or hurt somebody. Of course the other fellows make the reports, but I can at least swipe a few of your words for myself as I pass them on.

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Bob Rose has this reseume to put into "Shop Talk". It explains itself.

"Wednesday evening, January 11, at 8.30 P.M., in the Phoenix Junior High School Auditorium, Dean Byron C. Cummings, of the University of Arizona, traced the story of human inhabitation in this state from its earliest recognized beginnings to the present day. His lecture was beautifully illustrated by a large number of selected lantern slides. Using these pictures he was able to trace the development of prehistoric architecture from its earliest days of cysts, pit houses and brush shelters to the elaborate pueblos and cliff dwellings of Chaco Canyon, Canyon de Chelly and the Mesa Verde.

"Of unusual interest was his account of recent excavations in the tributaries of the Santa Cruz River in Southern Arizona which throws light on the antiquity of human inhabitation in Southern Arizona's valleys in prehistoric times. Dr. Cummings found primitive hammerstones beneath a well stratified deposit of clay and sand. The stratification was undisturbed, thus precluding recent burial as an explanation for how they came to be there.

It was the Deans' conclusion that the stratum level in which the artifacts were found was the surface of the ground at the time they were placed there and that as a result of erosion and deposition of sand and clay these objects of primitive manufacture were covered up.

Geologists have been consulted on the question of the age of these deposits, the Dean stated, and they class them as Pleistocene. Geologically, the Pleistocene is that division of geologic time just preceding the present, or Recent. This epoch was characterized by widespread cold climate and the extensive formation of great ice sheets and mountain valley glaciers. Since according to the best estimates of geologists the last invasion of glacier ice began some 50,000 years and waned between 30,000 and 20,000 years ago, an estimate of 25,000 to 50,000 years is assigned as the approximate age of these ancient artifacts.

Great antiguity for Man in North America has often been suggested for several decades but such contentions have always been invalidated upon thorough study and investigation. It must be kept in mind that the age of 25,000 to 50,000 years suggested for these evidences of human occupation of our Southern Arizona valleys is very recent compared with the age of hundreds of thousands to millions of years assigned to primitive Java, Neanderthal, Peking and other specimens of early man that have been found in the various continents of the Old World, and that the theory of the origin of Man in North America on the basis of early waves of migration from the general region of Mongolia and Central Asia is but little affected by these discoveries.

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Johnwill Faris writes the following letter to Mrs. H. B. Ford, Fort Wayne, Indiana in reply to letter asking information about Aztec Ruins.

"It is a pleasure to supply you with the information that you desire.

"We are glad that you felt that your trip here was one you remember as being a privilege and a pleasure. We are glad also, thatyou have the interest that your letter indicates. Your questions are very much to the point and reveal that you were interested in the visit with the Ranger."

"I am enclosing under separate cover,'Glimpses of Our National Monuments', which as the name indicates give you just a glimpse of all the monuments under the National Park Service. On page five you will find the space given to the Aztec Ruins and perhaps you will be interested also in reading the matter on Chaco Canyon, as they too, are of the same type as the Aztec Ruins.'Pueblo Construction'. I am also enclosing 'Mesa Verde National Park' whose people later occupied this Ruin, known now as the Aztec Ruins National Monument. While the types of dwellings differ in some cases they lived very similar, if you consider and bear in mind that as the cliff dwellers they were in the cliffs with small spaces for crops and little water, whereas these people had large areas available for culture and probably had a good supply of water. At least large canals show their havingtaken water from the river and brought it down to the fields in these canals. Of course, the government publications do not contain the details of actual excavation, and should you care for this detail it would be necessary to obtain the 'Anthropological Papers of the American Museum of Natural History', Volumes 26, parts 1-2-3-4-5, by Earl H. Morris. Should these be available address The American Museum of Natural History, New York City, New York."

"Now I will try to answer your questions and trust they will be answered to your satisfaction."

"1. Approximately when were they built and by whom?

"Through the study of Professor Douglas of the University of Arizona, as written up in the December 1929 issue of the'National Geographic the ring growths in the trees dates our Ruins from 1110 to 1121 A. D. or about eight hundred and twenty some years. They were built by a Pueblo people. We do not as yet know just which tribe but hope some day to be able to give you even that point. Of course you know that pueblo is a term given to many tribes of the Southwest who live in terraced houses or villages and it is the prefix that designates the particular tribe; Such as Hopi Pueblo, Zuni Pueblo Toas Pueblo, etc. In such cases as yet we simply refer to this ruin as a pueblo ruin.

"2. Materials used, Number of rooms, how long occupied, why evacuated?

"The material used by the first pueblo builders consists of worked stone of sandstone formation shaped and carried several miles distant from the pueblo proper. The second or Mesa Verde people as we call them used in some of their rebuilding and repair a round river boulder together with some of the sandstone similar to the first people. The number of rooms estimated in the first building are about 500 and then the Mesa Verde people added a little annex which if counted might bring the total of the pueblo and annex to about 700. This number does not include a number of surrounding villages several hundred yards away. As to just how long they were occupied is a guess. The years of actual living in the ruins are probably not so many; for it is apparent that several years, possibly fifty to one hundred, passed between the two occupations. This together with a statement made a year or so ago by a noted archaeologistthat the ruins have been deserted at least 500 years leaves not too many years. We do ### think that the second people did stop off only a short time. As to why they were vacated we are still at a loss. Numbers of reasons have been advanced and each have basis, but as yet we would hesitate to state just the cause of their leaving. It is possible that the second people did not intend to stay very long and that this was just a stopping off place; and thus no reason need be advanced as to why they did not stay.

"3. Use of the Kiva?"

"I am afraid Mrs. Ford, that you are asking the impossible here. There are probably hundreds of students and a number of archaeologist s that would like to know that very thing and far be ### it from a Park Service Custodian to enlighten that field. To not anger any one man and destroy or disregard his theory let us include almost everything and say that the Kiva might have been used as a school, a church, a club, and a lodge, and that will cover almost every type of meeting. The young bucks of the tribe, we are told were taken into the Kiva and taught the history and legends of the tribe, and we can call this the school phase. It is thought by some that while they receive this instruction they are apart from the tribe and almost live in the Kiva, so this might cover the club feature. We suppose that meetings of each clan were held in their kiva and we might compare that to the lodges of our present day; and it is assumed by some, that all religious meetings took place in the kiva and that accounts for the church end. We do doubt that it was customary for the women to be allowed in the kiva. Perhaps in some instances they were. That of course is not and may never be known definitely.

"4. Customs of inhabitants, manner of dress, livelihood, marriage customs, burials, etc?

"Here again, you are getting me into deep water, but I will adhere to the Park Service standards of giving you the deductions as gathered from the evidence found in the ruins, the study of our leading men, combined with the customs of our old indians, possibly a legend worked in here and therd but assuring you at the same time, that future excavations and finds might change the evidence to such an extent that it will be necessary to entirely change our story. As to customs, I may not entirely understand your point of view but I might say that they undoubtly lived in large groups numbering in some cases even over a thousand in one village. The men would probably attend to the crops do the hunting and fighting if it were necessary etc., while the women were undoubtably

"busy with the pottery, possibly making sandals, weaving cloth, although it is thought by some, that the men were the early weavers, the upkeep of the home with its many problems was unquestionably up to the women. The manner of dress we again have to more or less assume. Among the things found we have hides tanned and cloth materials and it is probable that both were used for dress. The climate would demand protection from the elements and as the winters are sometimes quite severe they no doubt had to wear a suitable garment. The livelihood was probably covered with the crops they grew, the animals they could and did kill. We find pumpkin, squash, corn, beans, skunkberries, squawberries, cactus fruits, and pinon nuts, some of which of course were dependent upon the season but nevertheless could have been used as food. The animals:- deer, antelope, mink, beaver, muskrats, wild ducks, geese, jack rabbits, cottontails, and prairie dogs, were numerous in the hills, flats and the breaks. I should have mentioned a maize also found. You are bearing in mind that they had plenty of water for irrigation and did not depend entirely on the rainfall. The marriage customs we are told may have been similar to some of the older Indian customs. The woman seems to be the main figure. In marriage, the men would give up the clan to which they belonged and become members of the wife's clan. She also had the say so in the now called divorce. In case she did not want the gentleman about any longer, she just put all his belongings out in front of the door and he had no say in the matter. We find no evidence to lead us to believe they had more than one wife and they were no doubt rather strict in their marriage code. We find no evidence to lead us to believe that they had more than one wife and they were no doubt rather strict in their marriage code. Of course this is based entirely as esisted in our present day Inidnas of several generations ago and those not coming in contact with outside influence We have not as yet found a regular burial ground in the Aztec Ruins. We have found 186 bodies in the excavations so far, but they are not enough to definitely state their burial custom. Those we have have been in some cases found under the floor about eighteen inches deep, set up in the corners of some rooms and the rooms deserted, some have been seemingly just placed in the room debris and refuse thrown in and in some cases bodies even on top of this material. Trash mounds have revealed several bodies. These bodies are usually wrapped in either a matting of fibrous material or feather cloth and in some cases both. This feather cloth is usually turkey feathers, we are not certain that they used the fowl for food. Some claim they were only used for sacred purposes. If you will allow I will quote Earl Morris and give you some extracts from his report. You will appreciate these of course are very brief and are taken rather here and there to give you what I think you will want.

'The Aztec Ruin is the principal member of a large group of prehistoric Pueblo remains situated in the valley of the Animas River one mile north of the town of Aztec. Its elevation above the sea is some 5,700 feet. Although barren, the Animas valley offered one of the most ideal situations in all the Southwest for Pueblo occupation. Occasionally the temperature falls to zero or below, but in the main the winters are mild and replete with bright cloudless days. The groves of cottonwood along the river, and the pinon and cedar forests in the neighboring hills # furnished a plentiful supply of timber for fuel and building purposes.

Description of specimens, --- for purposes of description these specimens are grouped into the following classes, 1. stone implements, 2. bone implements, 3. wood and wooden artifacts, 4. textiles and objects of vegetable and animal fiber, 5. objects of unburned clay, 6. pottery, 7. beads and ornaments.'

"By the way, I want to say in connection with the burials, that in nearly every case they are folded or buried as near the pre-natal position as possible. Several reasons are advanced but of courseall have their support. Let us say for our own reasoning and for our own thought, God sends us into this world that way, why not go back the same way? Or let us say that when we leave this world we are born into another world and since we were born into this world in the flexed position why should we not be born into the other world in a like manner?"

"Mrs. Ford, I could go on this way for pages and pages, there are volumes published on this and other ruins and I have almost added another to it with this letter, but I hope that I have been able to give you a meager conception of the ruins and we want you to feel perfectly free to write again if we did not make it clear. We are at your service at all times."

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Chief Clerk Evenstad, hereafter, will be known as the "##### "Agitator", a negro came stalking into the office the other day looking for the above person. We find that is an office of the local American Legion Post. However, Mr Evenstad informs us that he probably meant Adjutant.

Thus closes the monthly report and its longer tail, Shop Talk, for the month of January.

E.F./FF

Frank Pinkley

Superintendent.

SOUTHWESTERN MONUMENTS

MONTHLY REPORT

FEBRUARY — 1933

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UNITED STATES

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
SOUTHWESTERN MONUMENTS
COOLIDGE, ARIZONA.

March 1, 1933.

The Director,
National Park Service,
Washington, D. C.

Dear Mr. Director:

Another month has slipped into past history, the pay checks have been delivered, and it only remains for us to embalm the events of the last twenty-eight days in our peculiar style of English.

Through my district we have been having some winter weather, a little colder on the whole than the same month last year. Visitors have come out well, considering the weather; those who came proved interesting and interested.

Activities of the Park Naturalist: Bob Rose.

Mr. Rose left on the 27th for Berkeley and left the following report on my desk with the notation: "Dear Boss: My section is kind of dry this month." The report follows:

In the latter part of January, reports concerning some interesting archaeological sites reached us. The source of this information seemed sufficiently reliable to justify further investigation.

On February 3rd and 4th I was away on this study, a report of which has been made separately and a copy forwarded to your office.

Superintendent Roger Toll was in the vicinity of Coolidge on the 5th and on the morning of the 6th Mr. Pinkley and I met him in Tucson. From there we visited the several cactus areas that have been suggested as national monument possibilities. On the 5th we visited the area east of Florence on the improved Ray road. I have also submitted separately a breif report on these visits.

On the afternoon of the 17th I visited an area on the south and west slopes of Picacho Peak which neither Mr. Pinkley nor Mr. Toll had visited. An account of this study is emphasized in the report on visits on cactus areas. I believe from the information contained in that section, this area can be definitely compared with the other areas visited.

On February 27th I set out for Educational Headquarters at Berkeley to be away about a month to assist in the preparation of exhibits for the Century of Progress Exposition. Exhibits on the Petrified Forest and Rainbow Bridge will be my particular problem. The situation narrowed down either to my going and assisting in these projects or omitting them from the exposition because of the limited aid

in the laboratories at Berkeley.

A fine opportunity will be afforded in getting famaliar with laboratory methods in the preparation of models for museum use and we hope a great deal of this kind of work will be carried out for the Southwestern Monuments. Restoration models, for examples, Compound A at Casa Grande and of Pueblo Bonito would certainly add much to our educational facilities.

Miscellaneous contacts during the month were as follows:

Florence Union High School, Illustrated talk, "Touring the National Parks and Monuments." Feb. 1st.	300
Community Church gathering, Florence, "Indians of the Southwest."Feb 19th	75
Coolidge Women's Club. "Arizona History" Feb. 23rd	50
Total	425

All of which would make it appear that Bob was pretty busy last month wouldn't it?

Regarding a proposed desert national monument, I'm not so sure, Chief, that we are hunting on the right trail. As I understand it, you and Roger have an idea of reserving the finest bunch of Saguaro cactus that can be found. Now do you want that? I can tell you pretty certainly that you won't get the finest Saguaros and the finest typical desert scenery together. The same soil doesn't seem to produce both.

Personally I should lean toward the reservation of an ideal section of desert scenery, containing as many varieties of desert growth and desert animal life as possible. You can do this and get some very fine, thick stands of Saguaro which will come just under the finest known stand. If you take the finest known stand of Saguaro, assuming that you can get it, you are going to get a distinctly Class 2 type of varieties of desert growth and desert life.

I just offer these ideas by way of an interlude for whatever they may be worth. I might also ask the question: is this a park or a monument we are looking for and if so why?

Chaco Canyon National Monument.

The following good letter gives us an insight into Chaco matters in the off season.

"Dear Na-toh-ne:

Snow still clings to the mesa slopes on the south side of our canyon but even so, there have been a number of visitors, these being 'Blue Jays'. They have been with us for over a week now flittering over every ruin in the Canyon. Surely spring is near!

"Travel has been light, the cars through have been those of the Government Service and people passing us by, total exactly 37.

"The only visitors I have had about Pueblo Bonito were Hosteen Nez and his family. We spent a pleasant afternoon covering every nook and corner of the ruin. Never have I had such appreciative and interested visitors as the Nez family. Hosteen Nez particularly was

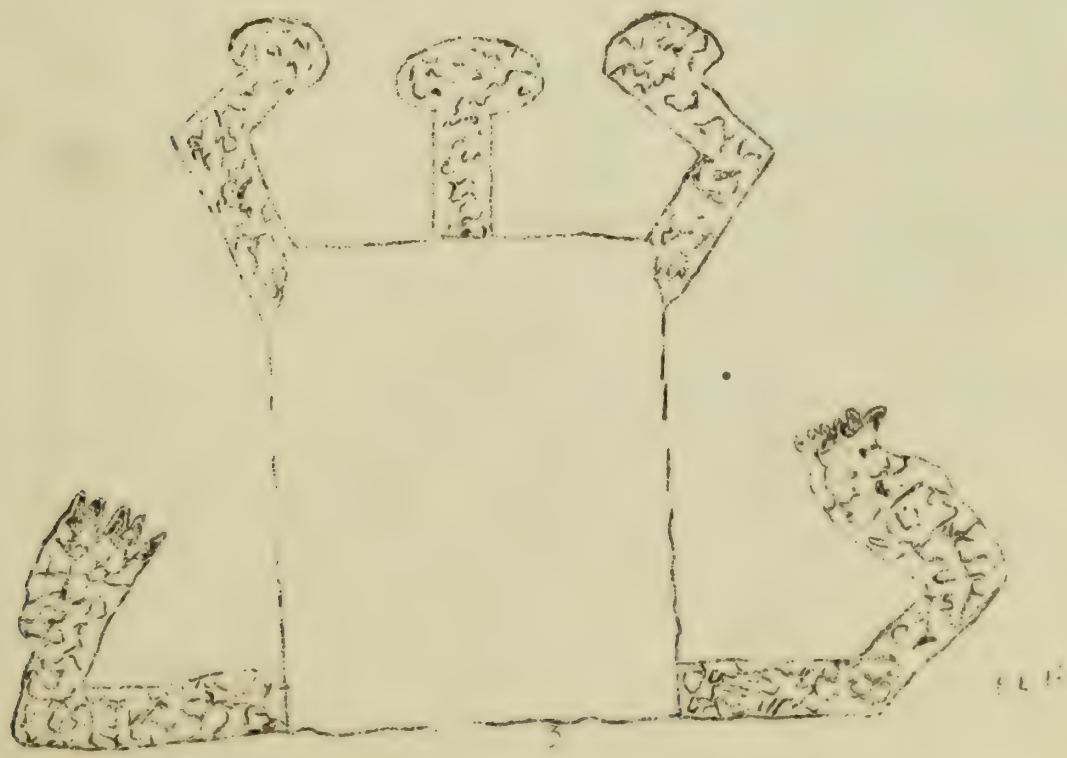
a fluent talker and told me some quaint stories (Navajo myths dealing with the ruins of the Chaco) one of which I recently found in Pepper's Report, published in 1920. This story was identical to the one told me by Hosteen Nez and concerned Pueblo Alto on the north mesa. This ruin, he said, was occupied by the chief who was the head man over all the inhabitants in the Chaco. I have since checked up on this story and find little variation in it; it seems to be a common belief among the Navajos of this vicinity at least.

"There have been any number of Indian 'sings' in the canyon. These have been to drive out evil spirits which made their appearance some months ago. So Navajo traffic has been heavy up and down the whole length of the Canyon.

"I want to inform you that Hosteen and Hosteen-ess Walete are the proud parents of a baby girl.

"A great many falls of rock have occurred this winter. This breaking away from the main cliff has destroyed many of the prehistoric carvings which I am thankful now to have in my sketch book. One large mass of rock fell a few days ago right about the hole which Mr. Julian and I had worked out last summer.

"Which reminds me , while looking for more pictographs to put in my sketch book I discovered the largest carving I have ever seen in the Chaco. The figure I have drawn here is as near like it as I could possibly get, due to the fact that it has weathered some and moss has accumulated upon its surface.



"This figure is placed high up on the cliff and, as I had no way in which to take its measurements, I should say it is about five feet in height and three feet in width or maybe more. The head, neck, arms, hands, legs and feet are all pecked in solid while the middle of him is merely the natural cliff.

"Weather for February has been fairly nice in the Chaco. However one cannot judge weather conditions here in the Canyon with the adjacent country, for, just two weeks ago the Government Weather Bureau Station at Bloomfield registered 28 and 30 below while the lowest temperature we had here, and that was only once, was 15 below. The early Bonitians knew what they were about when they chose the Chaco as a place to dwell!

"The maximum temperature for the month was 36; minimum was -15; days with precipitation were 6. The precipitation for the month consisted of intermittent flurries of snow amounting to a 'T' and 'melting as it fell'.

"And so your H.C.W.P. will close this epistle with her very best,

Regards,
Jeanne Griffin."

Don't you think that is a good report, Chief, for an H.C.W.P. to get out covering a winter month when you would think there was little or nothing doing on her monument?

Capulin Mountain National Monument.

Mr. Homer J. Farr reports as follows: "Lovely dry weather exists here and has for the last three months. We have had some high winds. We had some extremely cold weather from the tenth to the fifteenth, registering around thirty below zero.

"Travel to the Capulin Mountain National Monument has been very satisfactory this month. The road to the base and also to the top has been in very good condition all winter, and we have had about two hundred and fifty visitors for the month.

"I am wondering if a stone coping made of highly colored lava around the turn at the top of the Volcano would be recommended by our Superintendent as I have not heard from him on this subject since his visit here last summer."

I might say we are going to put the matter of protecting walls and railings up to the Engineers and Landscapers and will try to get some one from those Divisions in to Capulin when spring opens up and see what their decision will be. Something must be done to stop that raveling on the upper side of the road up the Mountain too.

We are proposing an item in the '35 estimates to erect a wayside shrine on top of Capulin, something like those in the Yellowstone, which will give the visitor an idea of the geological story of that interesting volcano. At present about all the visitor can get by going up the Mountain is a very fine view. The view is all right but it is a poor argument for a monument, and anyway it is outside our boundary, like Mount Shasta's fine view, so we can't count it as part of our property.

Casa Grande National Monument.

Mr. Palmer reports the following for the month:

"Last month, as you said, I was wailing, but this month I have the smile that won't come off. Our visitors, instead of decreasing, increased 20% over February of last year. Last February 1,847 visitors were registered and this February there were 2217 visitors to the Monument, an increase of 370. These visitors came from 40 states, Washington, D.C. Canada, Mexico, England and Japan, in 637 cars. 975 of them, or 43%, were out-of-state visitors, California furnishing 11% of the total or 250 visitors. Illnois was second with 76, New York third with 52 and Ohio fourth with 46. This large percentage of out-of-state visitors is gratifying and shows that the Casa Grande is certainly not just a local attraction. These 2217 visitors were personally contacted by Park Rangers Frank Fish and Ed Rogers with assistance during the peak periods by Naturalist Rose and the Superintendent. There were 256 guided trips through the Casa Grande and adjacent villages and 229 personally conducted trips through the museum to accomodate the total number of visitors.

"The Tucson Natural History Society visited the Monument. There were 87 people in the party from 17 states. They had a picnic lunch on our picnic grounds at noon and spent the afternoon in seeing the ruins and museum. On the 26th the Arizona Perdue Club followed the same proceedure; this club is composed of Alumnae of Purdue University living in the State. Only 18 were in the party, many being kept away by the inclement weather.

"On February 17th, six Hopi Indians, enroute to Tucson, to attend the Midwinter Rodeo, stopped to visit the ruins. The Hopis are greatly interested in our ruins because they claim they were built by their ancestors. The boys decided to remain over night on our picnic grounds. Tradition requires that before a dance they must remain up all night and consequently the personnel at the Monument slept to the accompaniment of the rythmic beat of drums and the chant of Hopi songs on that night. They returned on the following Thursday night and put on some of their dances in full costume, for the benefit of about 75 local people. A collection of about six dollars was taken up from the crowd for their benefit. Ranger Frank Fish was in charge of the program. This office has been unable to function with any degree of efficiency since because at regular intervals Frank breaks out into a Hopi chant or dance to the consequent destruction of the peace and quiet necessary for concentration on the job in hand. It is the common opinion around here that Frank should have been born a Hopi.

"Ranger Ed Rogers, temporarily assigned to this Monument, has been running to mazes during the month and has been trying to prove to all concerned that the maze on the wall of the center room of the 'Big House' was a natural development from some of their other designs. As a result this office as well as those of the Superintendent and Chief Clerk have been strewn with papers covered with various designs which can be and were turned into maze designs; the waste baskets have been overflowing every morning; there are mazes everywhere.

"On the 4th accompanied by yourself and Superintendent Smith of the Petrified Forest, I went to Nogales to see about purchase equip-

ment from Camp Little, which is being abandoned. Along with about 20 other Government agencies, we found that we were on a wild goose chase as there was no surplus equipment.

"On the 8th Mr. T. R. Goodwin and myself went to Camp Jones at Douglas for the same purpose and with the same results. These trips were taken at the suggestion of the Area Coordinator, but, evidently he had been misinformed.

"T. R. Goodwin, Road Oil Expert, from the Engineering Department of Field Headquarters, arrived on the 7th to take charge of the construction work on the entrance road, service road, and foot paths.

"Bid proposals were immediately gotten out for lumber, rock, premixed material and equipment. These were opened on February 16th. J. D. Halstead Lumber Co. was the successful bidder on the lumber and the Arizona Sand and Rock Co. on the rock, premixed material and the equipment. The contracts were completed at once and, those for the rock and premixed material being for over $1,000 were sent to Washington for approval which was received on the 25th. The grading is all completed, the paths have already been excavated and the headers have been put in, and by the latter part of this week premixed material and rock will begin to arrive. T.R. sure knows how to handle road work. His crews are accomplishing something all the time and he lays out his work to get the maximum work out of a minimum of effort and expense. The work is being given to as many men as possible and where it is as economical to do it by hand, machinery is not used. A few key men are kept on permanently and the others are given six days work each. It was not found practical to adopt the 30 hour week because of its being necessary to rent equipment on an eight hour day basis. We are cooperating also with the local Welfare Boards and are employing, as far as possible, the most needy, limiting the work to married men with families; common labor is paid $3.00, Senior Laborers, $4.32 per day. All work will probably be completed by March 10.

"One feature of the educational program which rates especial mention was a moonlight party conducted on the night of Friday, the tenth. A young lady from the San Marcos Hotel in Chandler wrote and asked for permission to bring over a night party to view the ruins by moonlight. She was informed that we would be glad to make special arrangements to have a ranger on duty on the night of Tuesday, the 14th. Some way or another they got mixed and came on the night of Friday the 10th. They found no one on duty and immediately started out to hunt some one up. The first house they came to was Chief Clerk Evenstad's and they found him coatless and shoeless, but willing to accomodate and he spent over an hour with them in the ruins and museum. The incident is noteworthy in that it proves that at least one of the personnel at Casa Grande is not a 'one job' man. It is one thing to keep a set of books that passes critical inspection each month and still another to conduct a party through a prehistoric ruin by moonlight, but Chief Clerk Evenstad has proven that he is capable of doing both in a creditable manner.

"The weather has been seasonable: the mean maximum for the month being 64.5; the mean minimum being 28.5 and the average mean 46.5. The maximum temperature was on the 28th, 80 degrees. The minimum was on

the 8th, being 17 degrees. We had the greatest daily range on the 15th, being 50 degrees. Total rainfall for the month was .21 inches. There were 21 clear days, 4 part cloudy and 3 cloudy days.

"The month has been entirely satisfactory from every angle and the wailing has ceased entirely and I am now singing. (But not Hopi Songs)"

Aztec Ruins National Monument.

Johnwill Faris has more or less woe to report:

"Dear Boss:

The month of February has been some month. Not at all outstanding from the visitor standpoint, but many other records of late have been broken.

"During zero and sub-zero weather it was necessary to dig up a portion of our sewer line and with hose and swabs we cleaned it out. An engineer would almost wager his reputation on our disposal being sufficient and under almost any other circumstances it would be, but here no drainage exists in this adobe soil. We found the line almost filled with a silt coming in through the loose joints laid for drainage. It is possible that now it is cleaned that the same thing will not occur again; we at least hope such will be the case. If it should recur our only remedy will be to give the line more fall and cement the joints, emptying it into the pit dug last fall.

"Of late the weather is extremely hard on our ruins. A thaw in the day and a freeze at night shows its effect. As yet, we are not too bad off, but continued for a time it will mean repairs in the spring.

"The long session of extreme cold will cost us several dollars at the Comfort Station. The water was shut off in the fall but, while it is not definitely known as yet, I fear some frozen pipes. Another winter should see us with possibly a small oil stove in each room at the Comfort Station.

"Our visitors total 61 forthe month.

"I am working on the Comfort Stations daily and will keep you advised of all our developments. I am also laying plans for our spring clean-up and general overseeing prior to our season."

El Morro National Monument.

Here is the usual good report from E. Z. and I notice that his typewriter has taken to striking its caps again. It went hay wire on him a month or so ago and refused to capitalize anything.

"Dear Pink:

I have just heard over the radio of the appointment of Mr. Harold Ickes, of Chicago, as Secretary of the Interior. As I have known him and of him for at least 30 years and know of his genuine interest in all public affairs in a big, constructive way, and have met him out here in New Mexico where he has been spending his summers at Staples' place east of Gallup, I feel that the choice is bound to be a very good one. His close contacts out in the west give him a wide view of the Land, Park and Indian matters which many Secretaries have lacked.

"My son and I ventured over the frozen mud and snow to El Morro today, leaving the ranch about sun-up so as to spend some time there going over all the details and still be able to return before the sun softens up the road so one cannot get through the mud.

"The run-off from the snow is not so great as I expected; it is going off very slowly but steadily. The nights have been very cold, which, no doubt, accounts for the retarded melting. Moisture is going into the ground and thus serves to assure a green spring.

"At El Morro we found the snow so deep on the north face with never a track or break in it that it was heavy and tiresome walking to the inscriptions. Even along the level walk-way near the inscriptions and down the trail there is still deep frozen snow sticking stubbornly in shaded silence against the great cliff.

"There has been no damage whatsoever to any of the inscriptions. No carving of names anywhere; no visitors with the exception of three in January for many weeks.

"The water in the storage reservoir in the Cove on the south side of the cliff has reached up to about three feet of the spillway. The ice is still thick and easily supports one without any cracking protest. A few homesteaders' teams have been in for water, which they dip up from a hole cut in the ice into their water barrells for home use. No mess of any kind left by neighbor or tourist.

"The shelter house or ranger's cabin, as Ranger Peterson newly named it, is in good shape. Some one pried off the padlock but did not open the other lock in the door so everything inside was undisturbed. I think the lumber there is rather insecure and will either bring it in to my ranch when the roads are solid or I will pile some inside the cabin under lock and key. The roof, like some of our roofs, does not leak a drop and there is good drainage around the back and sides of the cabin.

"The gates and fence, the bridges and signs, were all as left before the snows.

"That Nature in the Raw is Never Mild is attested again by the way the terrain below the De Vargas 1692 inscription to the point of the cliff is washing out. Wind, snow, rain, heat and cold are working fast on this portion of the ground over which people must pass to see the inscriptions. It is getting increasingly difficult to get through there and see or think about anything but ones' underfoot safety. I feel that the engineering talent of the Landscape Division of the Park Service ought to come on to the scene this spring and help preserve what dirt we have left in some attractive style. Very little grass can get a foothold any more though the grass in most of the Monument is emerging from the snow in wonderful condition.

"I spent some time in making a list of members of the John Udell First Emigrant Train party which evidently camped here July 7 and 8, 1858. You recall that Mr. F. W. Hodge, of the Southwest Museum, of Los Angeles had come into possession of the diary of the leader of the party which said that members of his party had carved their names on the cliff. It is notable that, like the soldiers, geologists, and surveying parties who visited here and left their names from 1849 to along in the 70s did not in any case carve their names so as to hurt the old Spanish inscriptions.

"Besides the names of John Udell, Isaac Holland and P. H. Williamson, which appear together not far from the De Vargas escritura, I found the names of R.T.Barnes, L.S.Rose, J.M.Poole, W.C.Stigger, S.D.Gray, H.B. Stafford, W.C.Harper and J. P. Sumner. There may be others I can locate with less snow underfoot and with a telescope, for some of them are high up on the face of the cliff.

"I have been pleased to receive the Yellowstone Guide Book, the Mesa Verde Report, and, just today, the fine Rocky Mountain National Park book of plants. A great deal of valuable information there.

"I spent several days in Santa Fe recently on tax and road matters as well as grazing land business. While there I gave the State Highway Engineer another whirl on our road to El Morro. I have a promise which may materialize in some good work along that line.

"The appointment of a National Historic Site Committee by Director Albright is a much needed step. In that line I would like to nominate among other places Hawikuh, the site of the Zuni village about 12 miles west of Zuni which was a flourishing village in 1540 when Coronado brought the first herds of sheep, cattle and horses into the country from Old Mexico

"Not far from the ranch here at the old Box S Ranch, there still stands the bunk house used by the cowboys of that outfit. In this bunk house Jack Pershing, now the General, fresh out of West Point, alone and unarmed, captured three outlaws who were barricaded there after stealing some Zuni horses and killing some of the pursueing Pueblo Indians from Zuni.

"With best regards to you and all the people in the Service,

E.Z.Vogt."

The Engineers and Landscapers have promised to get around to El Morro pretty early in the spring and go over the whole monument. We really ought to have a topographic map of this monument and get our six year plan worked up on it, because one of these days E.Z. is going to succeed in breaking a good road through that way and a lot of the traffic from U.S. 66 will descend on us in a rush.

I agree with Mr. Vogt that one of the historic spots in the southwest to be reserved is Hawikuh. It was here that the negro, Estevan, lost his life and Fray Marcos turned back to Mexico with his tale of gold which brought up the Coronado expedition. It was here that Coronado and his men were led by that same Fray Marcos and old Casteneda says something like, 'and when they saw that the famous city was nothing but a jumble of little huts, such curses were called down upon the head of the Father that I pray God may protect him from them!" I quote from memory but that whole Winship translation is well worth your reading if you can spare an evening for it.

Mr. Hodge worked at Hawikuh several years ago, as you know, and our own immortal Jess Nusbaum, as a long legged lad, worked there under him. If you ever do appoint a committee to choose southwestern historic sites, don't forget that Mr. Hodge knows more about the history of the southwest than any man living. We might just as well give him his flowers now as later.

Montezuma Castle National Monument.

It seems that Jack has some troubles of his own up at the Castle, and I will let him tell them in his own way:

"Dear Pink:

"It is my intention at this time to write a report concerning the activities on Montezuma Castle National Monument for the month of February, but, owing to the fact that Engineers Attwell and Stevenson arrived on the 19th and started a crew of men to work on the 21st; and that I am being constantly called upon to find a hammer, a saw, locate a pipe line or septic tank which is covered up with dirt and I have no way of locating except by memory which I find is not to be relied upon; and it taxes my capacity to write a decent report even when I am not interrupted, it surely remains to be seen what this will look like when it is finished.

"While I am on the subject, I would like to say that if the above mentioned engineers can build as fast as they can tear down, they must be the world's fastest engineers; and that also remains to be seen.

"We have had 591 visitors for the month; which is not as many as we have had for the same month for past years, but is really more than we expected this month, considering the extremely cold weather and that the roads leading into the Valley are still slick from melting snow.

"It is the first year since I came to the Verde Valley in 1912 that the fruit trees have not blossomed out during the latter part of February. Even as this is written it is so foggy that one can hardly see at all and I am sorry to say that it is not the 'light dry fog' that is so common to California.

"The Board of Supervisors of Yavapai County, Miss Grace M. Sparkes, Secretary of the Chamber of Commerce of that County, and a number of interested citizens were in from Prescott looking over the proposed work to be done here.

"I am told, on reliable authority that better than a thousand men have registered with local agencies for work here, and I dare say that one half the number have advanced good and sufficient reasons why they should be put to work ahead of some other fellow. All we can tell them is that they will all get work in turn if the work lasts long enough.

"Ranger Hugh Curry and wife visited friends in Holbrook during the month."

Just to give a certain gentlemen his due, we want to put into the record at this point a short report from Walt. Attwell, who is the cause of Jack's grief:

"Receiving word from the Washington Office on February 15th to proceed with the Montezuma Castle Parking Area, I left Field Headquarters on the morning of the 17th and arrived at the Castle on the 19th at noon.

"The following work has been accomplished to date (28th) although the project is little more than a week old: The entire area has been cleared and grubbed, 35 square yards of rubble masonery has been constructed, 40 cubic yards of masonry retaining wall has been built

on Beaver Creek, 380 cubic yards of excavated material has been placed in the fill south of the ranger station. The project is 17% complete.

"Custodian Jackson is furnishing the crews through the various relief organizations with very satisfactory results. The County has furnished free a Thirty Cat with scarifier and fresno. This equipment being furnished free allows more work to be accomplished without decreasing the funds available for laborers.

"The public has shown considerable interest in this project. A day very seldom passes without some County or State official visiting the project.

"The weather has been in our favor and the Creek has not raised enough to cause any trouble."

All of which would lead one to believe that when Walt. Attwell got on the job the dirt began to move.

Gran Quivira National Monument.

Mr. Smith, of Gran Quivira, reports as follows:

"Dear Boss:

In reporting on the travel for the month of February, 1933, we had 125 visitors enter the Monument in 20 cars.

"The road conditions are better and the weather is beginning to gradually grow warmer. Travel is also on the mend. Practically all of the registeration we had for the past month was in the latter portion of the month. With warmer weather near at hand we expect travel to increase somewhat.

"Mr. Yrisirro and his party of treasure seekers returned to their homes in Albuquerque on the 10th and expect to be back and resume operations in April.

"On February 12th, the air passage from the mouth of the shaft of the treasure hunters was so strong that it would that it would have been impossible to have laid a newspaper over it. The wind would whisk a paper into the air like a New Mexico whirlwind. The roar was so great from this escaping air that it could be heard for several feet. As to the prevailing wind on this particular day, it was no stronger than usual; if any difference it was a rather still day. As to the temperature, I should judge that it was several degrees warmer than usual, which seems to bear out the idea that contraction and expansion is the cause of this phenomenon. In my opinion it must be quite a cavity which could produce such a current of air for six or eight hours. I should guess that there is an intake in the vicinity and the atmospheric conditions governs the intensity of the pressure. It also appears that the treasure hunter's tunnel has been directly or indirectly connected with this air passage since the air pressure is so much stronger than it was before."

I told Mr. R. H. Hanna, of Albuquerque, who is the legal adviser of the treasure hunters that there would be no objection to their shutting down their operations until April when the weather would be much better for them to work.

Petrified Forest National Monument.

Superintendent Smith has reported to you directly but his report is included here for the benefit of the other 65 people who get copies of this report so they may know how things are going at the Forest.

"Dear Mr. Director:

Following is the report on the Petrified Forest National Monument for the month of February, 1933.

"Activities in this Monument have been of a rather routine nature during the month. A balance of $124.04 remained from the $500 donated by Mrs. Stella Leviston a year ago last summer for the purchase of display cases and this balance was used during the month for the purchase of four display stands to fit over the radiators in the Exhibition Room, five pedestals for the display of individual specimans, and two display stands eight feet long which are placed on the west side of the room. These were all exceptionally well made by Mr. Chas. E. Fisk and are finished in Quinault Driftwood so that they harmonize nicely with the fine cases we had installed previously. I do not know of any additions which could be added to this room to make it more attractive.

"The weather has been mild. The highest temperature recorded was 59 degrees and the lowest was 1 degree. There were 18 clear days, 6 part cloudy and 4 cloudy. Rain or snow fell on five days with a total precipitation of 1.07 inches.

"All work, administrative or otherwise, has been kept up to date. Periodical inspections of the Monument have been made by the Superintendent.

"No changes in land ownership have been made although an exchange of lands is pending whereby several thousand acres will be reconveyed to the Government in the Painted Desert Section by the State of Arizona and the Santa Fe Pacific Railroad.

"A mimeographed Bulletin of Information with a sketch map on the reverse side showing the connecting roads and the nearby towns is sent out from time to time for the information of the public. Copy of this is attached.

"Our road has beenwell maintained through the month, being kept in as good or better condition than the two U.S. Highways on the north and south. The gravel dips through the washes have required quite a lot of attention on account of the sand washing in with the rains and melting snows. Several cars have been stuck in these and have been pulled out with the tractor and trucks.

"The general store, curio store, and lunch counter, with cabins, are operating under an annual permit issued to Mr. Dick Grigsby. This firm was reorganized on January 1, Mr. Grigsby holding the permit with Mr. J. C. Paulsell as silent partner. The former Mrs. Grigsby and Orville Redding, who were former members of the firm, have withdrawn and have taken over the property which was formerly owned by the firm in the village of Adamana.

"Associate Highway Engineer, W.R.F.Wallace, of the Bureau of Public Roads, was in the Monument once looking over proposed changes in the location of the road north of the Santa Fe Railroad.

"The museum has been kept open all day every day during the month and this is the only special educational service it has been possible

to give to the public.

"There is a steady increase in the travel, due to the bridge over the Rio Puerco and the establishment of a checking station at the Painted Desert on U.S. Highway 66. Counting the travel registered at that point, our travel now shows more than 100% increase over last year. Only those people actually contacted are counted. A tabulation of this travel follows:

By private automobile - - - ------	cars	591	visitors	1,771
Previously reported - ----------	"	3923	"	11,036
Total to date through P.F. ------	"	4514	"	12,807
Painted Desert Section v----------	"	987	"	3,528
Previously reported ----------	"	3560	"	11,609
Total to date, Painted Desert ----	"	4547	"	15,137
Complete total for the month	"	1578	"	5,299
Grand total to date ----------	"	9061	"	27,944

"Every state and the District of Columbia was represented except Florida, Louisana, Maine, Mississippi, and South Carolina. Canada, Germany, Japan, Mexico, Scotland and South Africa were also represented.

"Among the visitors are noted M.L.Woodard, Publisher of the Southwest Tourist News, of Gallup, New Mexico, and Vic Householder, of Phoenix, Arizona.

"There were no official trips made during the month by officers of this Monument at Government expense.

"The Superintendent was away three days on compulsory furlough, Frank J. Winess 8 days, and Thomas C. Miller, 7 days.

"The herd of antelope which ranges in and out of the Monument was seen several times. The greatest number counted at one time was 29.

"Several optomistic porcupines were observed traveling across the Monument during the month. One of these took up his abode at the agate bridge, and four stopped among the cottonwoods near the Indian ruins. This migration may be due to the depression and the general unrest throughout the country.

"We have had one camper in the public camp ground at headquarters."

I think if you will look back through the files of a few years ago you will find several places where Mr. Smith promised you a 100% increase in his visitors when the new Puerco Bridge went into action. White Mountain isn't given to boasting and I think you will get your hundred per cent with a lot over for good measure this year. And please make a note of it. the personnel doesn't increase one hundred or any other number of per cent In other words, that gang at the Forest with ten per cent less salary are going to have to handle a hundred per cent more visitors. There will be no kick about that on the part of the personnel, you have met those boys and know that, but the point is that they will have to spread themselves so thin that the visitors will not be able to get hundred per cent service.

Natural Bridges National Monument.

Zeke Johnson writes the following from Salt Lake City:

"Dear Frank:

I thought I would just tell you a few little stunts I was trying to help put over. I have been wrangling with the legislators from the south counties of the State. I have met with them several times. I got them, nine in all, together in the Newhouse Hotel before the House convened and put the matter of a connecting link between the Natural Bridges and Wayne County Wonderland, as it is called, and all pledged their support. We have met several times since and I have made several speeches before members of the House and a number of clubs and organizations have asked me to talk to them and explain as near as I could the country between Mesa Verde and Bryce Canyon. I think I have convinced many that it is a most scenic country and not a hard road to build; and that it would turn thousands of autos from Mesa Verde through our state that now go other ways.

"We have felt that if the Wayne County Wonderland could be made into a Monument it would help to foster this proposed road. So I have helped to that end, but it seems that money is so scarce that it doesn't seem possible to get much results.

"I am sending you copy of the memorial for the Monument and also a clipping from the Tribune, etc.

"I have spent nearly all my time so far this winter trying to help put these projects over and I am hoping for some results.

"There is a big placer gold boom down to Blanding. Gold has been found all around town, some ground testing as high as $42 per yard. We expect a big rush there as soon as the snow goes off. Some of my friends here plan to put up a few dollars for expenses and send me down to look it over about the first of March. So I expect to run down there if weather conditions are favorable as spring begins to come. I am itching to get back to the Monument; I am tired of the city."

Let us hope that Zeke finds the grandfather of all placer mines, but I'll predict right now that if he does, he will never get so far away that he can't come back to the Natural Bridges at least once every season and shoot a few rounds of powder on some new trail we will be building for the thousands of visitors who will be coming in by the Mesa Verde-Blanding-Bryce Canyon road.

Pipe Spring National Monument.

Mr. Leonard Heaton says:

"My report for this month consists of more snow, 33 inches at Moccasin; temperature 29 degrees below zero in Pipe Valley and four cars over the roads beside the mail car and it only made about ten trips where it should have made about thirty. The rest of the time the mail was traveling by sleigh and horse back. Pipe Springs was used as a changing station forthe horses during the time the roads have been snowed up.

"The last three days have been warm and pleasant, still the snow stays on the ground except where it is disturbed by cars and animals. I hope that spring will soon be here so that I can get to work on some

of the projects that I have planned to do.

"We are just getting over a siege of flu and colds but nothing very bad."

One of the first things on deck when the season opens is for the Park Naturalist, Bob Rose and myself to go over there and see what can be done to help Mr. Heaton in his plans for improvement.

Tumacacori National Monument.

Mr. Boundey has the following report:

"Visitors for February, 822. The month has been an unusually cold one, the thermometer at the weather station at Tubac registering twelve above one night.

"On the 27th of January I saw seven swallows flying about and watched them for fifteen minutes. This is three months earlier than I ever saw them before.

"Mr. Pinkley and party called on our day off; am sorry we missed them.

"Surveyor Smith and two assistants from Coolidge, spent a day surveying and laying out our new parking place.

"Two old guns excavated in the vicinity were added to our museum collection this month; also about fifty objects from Indian excavation. Two cremation ollas in Pima pottery were with the above collection. The ollas were excavated a short distance above the Mission.

"A Mr. Renwick, a visitor at Tucson, is making a collection of fire arms for the Harvard University Museum. He has called at Tumacacori Three times to examine one of our old guns and says it is an unusually rare speciman."

Mr. Boundey will likely have a good increase in visitors next month because the road work between Tucson and Nogales should be finished and there will be a heavy traffic down his way.

In General.

The Southwestern Monuments are having their share of visitors and I believe there are more on the road now than at the same time last year. The weather has been colder than normal but has not seriously interfered with travel. Southwestern resort hotels report fair tourist business and, unless the unexpected happens, we will have a fair season for the coming summer.

Cordially,

Frank Pinkley

Frank Pinkley,
Superintendent.

Feb

~~January~~ Supplement
To The
Monthly Report
****

Dealing with persons, news
and General Shop
Talk.
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Say, Chief, did you know there were 40,320 different ways of putting eight books on a shelf? Well, neither did I, but it figures out that way, and it is an interesting bit of information although it is rather hard to work it into a general conversation.

The reason I brought the matter up here is that Ed Rogers, who has been on special duty here at Casa Grande for the past month or so, has been working on our near-famous Casa Grande maze. I'll bet he has made a thousand of them in the last thirty days; Teddy Baehr declares he found one on a piece of pine board out in the kindling pile. They turn up everywhere, but we know a little more about the maze than we did when Ed got interested in it.

You see, this Casa Grande maze, which occurs on the north wall of the center room of the Casa Grande Ruin, has a total of eight passages if you count across it from the outside to the center and count the center as the eighth. Now it is entered in the peculiar order of three, two, one, four, seven, six, five, eight.

Nearly half way round the world, in the island of Crete, certain copper coins have turned up with this same eight passage maze, entered in this same peculiar order, and those coins were stamped about two thousand years ago! Laugh that off if you can. You see, if it were a simple design, like a square or triangle or Greek fret, we could simply say it was a case of separate evolution, since there would be a high percentage of chances of the two cultures hitting on it separately; so we never try to claim connection on simple designs. But that two cultures half a world apart should hit upon an eight passage design and then hit upon the same peculiar run of three, two, one, four, seven, six, five, eight, and do it all accidentally, just doesn't sound like good sense.

All of which caused us to work out the good old law of permutations and combinations covering the eight books on a shelf. If you believe those two mazes just accidentally turned up separately, you are taking a chance you wouldn't put any money on in a horse race.

We have accumulated a lot of information, and, no doubt, a good deal of misinformation, on these mazes, and, sometime when we aren't behind with our preliminary estimates or something, we hope to write one of these complicated wise looking reports like the Engineering and Landscape and Educational Divisions are constantly getting out which help to make the file clerk's life worth living.

The funny thing is that our neighbors, the Pima Indians, have this maze and we can prove they have been using it since 1760. Now where do they hook in on the problem?

You will find it in the southeast part of the United States, but that is easy, it came in with the early settlers from England where

it occurs in the form of turf mounds dating back probably to Druid days, and where it drifted over across Europe from Crete. You can find it all over the shop in Europe except that it doesn't seem to have been used in Spain. That is the catch about bringing it in to the Pima Indians by way of the Spanish occupation; the Spanish didn't have it to bring.

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Speaking again of Parks and Monuments: Here is what the American Civic Annual has to say about a National Monument: "A National Monument is an area containing 'historic landmarks, historic or prehistoric structures, and other objects of historic or scientific interest' set aside commonly from lands owned or controlled by the United States, generally by proclamation of the President of the United States."

This is a little more than a definition of a National Monument because it goes into detail as to how it is made. If they will just stop withthe word 'interest' we will agree with them that they have a fine definition.

A little farther on is something which gives us a smile. I quote from page 9 of the '39 edition of the American Civic Annual: "Since the passage of the American Antiquities Act, the conception of the types of areas which should be preserved as National Monuments has been somewhat extended, but the wording would quite properly apply to existing Monuments. The proceedure authorized in the Act has been used occasionally to preserve areas which have later become National Parks by Act of Congress, but since many of the National Monuments would hardly meet all the National Park standards it is probable that many of the areas now or hereafter preserved as National Monuments will continue in that category."

It looks to us a little like the party who wrote that was quite sad because a bunch of diamonds would hardly meet all the standards of emeralds and it is probable that many of the diamonds will have to remain in that category -- of course occasionally you get a green diamond and you can slip it over into the emerald heaven but the great majority of them must always remain in outside darkness!

Now being a Monument isn't such an awful fate, and there are numerous of our largest and best Parks who shouldn't look down on the monument system because it is the mother who brought them into the world. They weren't 'promoted' out of the monument system at all. All hands simply recognized that they never did belong there and they were put over in their proper class. One of the main reasons I am trying to find out what a National Park is, is to keep these mistakes of classing them as Monuments and then correcting the mistakes later from happening.

On page 4, a National Park is described as "An area, usually of some magnitude, distinguished by scenic, scientific, historic, or archaeologic attractions and natural wonders and beauties whichare distinctly national in importance and interest, selected as eminent examples of scenic, scientific, or historic America, and preserved with characteristic natural scenery, wild life and historic or archaeologic heritage in an unimpaired state, as a part of the National Park System for the use and enjoyment of this and future generations."

To which my only comment is that this is a pretty wordy definition and they have certainly warped it pretty badly to get it to cover Mesa Verde.

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The two Boundey children are, at this writing, sick with something like flu. We hope they get along all right and can extend our sympathy to the children and their parents.

It was little Burton Boundey, by the way, who, talking with a slight lisp, was asking his father about some sheep, which he called 'theep.' His father pointed out that he didn't pronounce it right and said; "You can't say 'sheep.' " Burton never batted an eye: he just said "Yea?" - - "Well, let's talk about goats then!" Which is pretty good for a four or five year old.

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We forgot to call your attention last month to the fact that Winsome Winnie was on her furlough without pay and Ed Rogers was pinch hitting as the staff artist. Ed is also turning out this month's cover. We don't want him getting all puffed up with pride, but we will admit that he is pretty good.

Mrs. Rogers, the H.C.W.P. of Bandelier is in West Virginia on a visit with her home folks. She reports a grand time being had by all.

We are glad to report Walt. Attwell back on the job after a couple of months spent at Field Headquarters, and the dirt is flying on the Montezuma Castle job. He says he left Mrs. Attwell and the kids all right.

T. R. Goodwin, of the Engineers, is back at Casa Grande and it seems good to have him and his men tearing up things and messing around with our roads and walks, because we know with him in charge when it is all over we are going to have a Grade A job of it.

H. F. Palmer, of Casa Grande National Monument, has been feeling pretty good this month, so Mrs. Palmer took time out to get sick with a threatened attack of appendicitis and spent a couple of weeks in bed; one of them with nothing to eat. Which moves us to remark that we had rather have the flu because Doc let us have something to eat now and then.

Bob Rose left headquarters on the 27th, bound for Berkeley to help with a model of the Petrified Forest area which is to go to the Chicago Fair. He expects to be gone three weeks or so and then will be back on the spring field work.

H. R. Julian has been out most of the month on Chaco land matters and things in that connection seem to be working out very well. Mr. Julian was taking a few days off on furlough at the end of the month and will get back into the Chaco for the summer well before the end of March.

Ranger Frank L. Fish, despite contrary orders from Mrs. Fish, picked up two girls on the highway. They were much more interested in the uniform than they were in Frank and asked numerous questions which finally gave them the information that Frank was a Ranger. One of the girls then remarked that the day before she had ridden with one of his 'enemies'. Fran was curious to know who his enemy was and she informed him it was a cowboy. She was evidently confusing Park Rangers with Texas Rangers and thought that both were 'agin' cowboys.

By the way, some latent ability at lettering and chart making has turned up at Casa Grande in the person of this same Ranger Fish. He has prepared a chart on the dated ruins of the Southwest which is both attractive and instructive.

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The following is something that turned up under the heading of "Sunset Gold," signed by G.A.C. in the Sunset Magazine for February, 1933. I abstract it here and it seems to me to be applicable to our work.

"Nowhere else in the country do pioneer days seem so close to the present as here in the west. History is not merely something to be learned out of a book. It is actually and vitally related to our lives of today. Perhaps it is because there are still so many tremendous stretches of untouched mountains and forests and deserts that we are constantly reminded of those early day struggles.

"We are inclined to pity those men and women who made crude homes in this western wilderness. Certainly we should not care for the bodily discomforts and hardships that they endured, giving up the material benefits that the machine age - whatever its faults - has brought us. But rather than to look back smugly to pity them, I think we might well go back in spirit ocassionally and strive to learn something of the secret of their zest for life, some of their dearly bought philosophy, their faith and hope and trust in the future of the country that they were helping to build.

"No one need search for excitement when his every day work brought such genuine thrills as were theirs. Life in spite of everything was sweet. I do not recall reading of any pioneer who killed himself. Everyone was so busy hanging onto life that suicide was not a problem to be considered in the light of a serious epidemic as it is today.

"The days of the raw frontier of the West are behind us, but the spirit and faith and courage of the pioneer are just as much needed today as they ever have been in the history of our country. Let's be pioneers."

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And so we close the curtain on February and turn or faces on the new month with the assurance that we are going to get just as much fun out of March as we have had any month of the past year. Our work changes enough from day to day and week to week that it rarely grows tiresome.

D.

The Boss

SOUTHWESTERN MONUMENTS

MONTHLY REPORT
MARCH—1933

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The front cover and the illustrations are the work of Ed Rogers.
Stencil cutting by Bob, Hilding and the Boss.
Mimeographing by Frank Fish.

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UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
SOUTHWESTERN MONUMENTS
COOLIDGE, ARIZONA.

April 1, 1933.

Dear Mr. Director:

In formally and officially relegating the activities of March, 1933 to the shelves of memories and accomplishments, I have the following report to make:

From Berkeley, California, where he has been participating in the preparation of exhibits for the Century of Progress Exposition, Bob Rose sends in the following report:

Activities of the Park Naturalist: Leaving Coolidge February 27th, I arrived at Field Educational Headquarters, Berkeley, on the afternoon of March 1st. I have spent the entire month in the National Park Service laboratories in the preparation of various exhibits under way for the Century of Progress Exposition which is to be held in Chicago between June 1st and November 1st of this year. Since the Southwest is well represented in the Park Service display, a description of the exhibits as they have been prepared will be of interest. I also wish to discuss the various opportunities that exist in Southwestern Monuments for using this type of exhibit in our educational scheme.

Exhibits preparation consisted chiefly in the manufacture of eight large scenic models of national parks and national monuments. The amount of money available for this work was merely sufficient to purchase the materials and certain very special services such as background paintings. This being the financial situation, it was necessary to call upon the various national parks and Southwestern Monuments for the assistance of their park naturalists and others in this work.

The scenic models are of the diorama style in which foregrounds are modeled with a special form of plaster while backgrounds are paintings done by Mr. Gunnar Widforrs, famous Swedish water-color artist. By carefully studying elements of perspective, lighting and arrangement, the models give the observer the feeling of standing in the very presence of the scene itself. These dioramas have been constructed in large cases approximately 5½ feet long by 4 feet wide by 6 feet high. Electric wiring, paintings on lincleum background, especially modeled foregrounds-all are contained in these large boxes while attractive windows about 3 feet long by 2½ feet high are constructed such that the scenes can be observed to best advantage.

The following National Park Sefvice units are represented in these dioramas:

Rainbow Bridge, Utah	Carlsbad Caverns, New Mex.
Grand Canyon, Arizona	Mesa Verde, Colorado
Ice Caves, Rainier	Grand Teton, Wyoming
Petrified Forest, Arizona	Kilauea Volcano, Hawaii

These subjects have been chosen such that they exemplify some of the outstanding features of the National Park Service units. They also lend themselves nicely to the diorama type of reproduction. Most of the subjects have been chosen to fit in with the general theme "Earth Science as Exemplified in the National Parks and National Monuments". Accompanying the models are carefully worded labels while transparencies which can be illuminated at will by the observer accompany the Grand Canyon and the Ice Caves dioramas. The ideas conveyed by each exhibit are briefed below:

1. Rainbow Bridge, Utah:- An outstanding example of an arch eroded by the combined action of a down cutting stream and chemical and mechanical processes of weathering.

2. Grand Canyon, Arizona:-Grand Canyon is the most spectacular chams in the world, formed primarily by the downcutting of the Colorado River supplemented by mechanican and chemical processes of weathering. The story of life on the Earth down through the ages, and of landscapes in past geologic time, is recorded vividly in the formations laid bare by the erosion of the Canyon.

3. Ice Caves, Rainier:-This model takes us right within the ice mass of the snout of a glacier where we stand looking out of an ice- encircled aperature to the light of day. The milky waters of a subglacial stream, made white by "rock flour" held in suspension, and the debris held fast in the bottom and sides of the ice mass, testify to the mighty power of ice as a sculptor of landscapes. Transparencies accompany this exhibit showing examples of modifications ultimately resulting from glaciation. Properly lighted, this exhibit is wonderfully informative.

4. Petrified Forest, Arizona:- The Petrified Forest of Arizona is the outstanding thing of its kind in the world. Here, logs of wood of a kind not living today but related to the Monkey Puzzle and Norfolk Island Pines, have been changed into semi-precious forms of Chalcedony which include Jasper, Agate, Carnelian and Onyx. Warm climate must have

prevailed over this lowlying, swampy, frequently flooded region of Upper Triassic time. The manner in which the processes of erosion are uncovering the logs is an important lesson illustrated in this exhibit.

5. Carlsbad Caverns, New Mex.:- The Carlsbad Caverns is the world's greatest and most spectacular example of the work of underground water. This feature affords a wonderful opportunity to show the power and magnitide of chemical work of underground waters.

6. Mesa Verde, Colorado:- Mechanican and chemical processes of rock disintegration have produced recesses in the cliff walls which have been selected as village sites by prehistoric peoples. The model is a diorama of Balcony House and a scene in the Canyon in which it is situated.

7. Grand Teton, Wyoming:- A fine example of crustal displacement is ontained in the Tetons. A block of the earth's crust seems to have tilted resulting in one edge of the block being raised while the other was depressed. Stream and glacial erosion has given the spectaculat character to the Tetons.

8. Kilauea Volcano, Hawaii:- In no other place may the characteristics of molten lava be studied so advantageously as the crater of Kilauea. The molten material can be studied while still within the volcano itself. In this exhibit a mechanism has been constructed which simulates the volcano with its splashing, surging lake of fire.

My activities were confined chiefly to construction of the Petrified Forest diorama. However, due to personnel shortage, I assisted in mounting transparencies, revising label text, modeling and painting on several of the other models.

The completed dioramas were moved to Giannini Hall for Preview Exhibit through March 27th, 28th and 29th. Large crowds were attracted to see them through the generous publicity of Bay Region papers and posters placed over the Campus and in Berkeley by the University of California. Of special note was the large numbers of off-Campus people who came to view the displays. Observing the reactions of the visitors, it seems that these exhibits are getting their story across in a very effective manner.

There seems to be no question but that the diorama type of exhibit is a very effective instrument of visual education. Great opportunities present themselves for this type of thing. However, extensive application of the method should not be made without a thorough study of the whole problem. In Southwestern Monuments, I believe the diorama type of exhibit can be best applied to reconstruction scenes of prehistoric pueblo and cliff dwellings, and of the activities connected with the daily life of these ancient peoples. Pottery and basket making, religious ceremonies, and tilling of fields with implements of wood and stone are some of the subjects that might be drawn upon.

The greatest opportunity for advantageous use of transparencies, I feel, is found in using scenes from the various monuments in the museums of individual monuments. These scenes, along with maps showing connecting routes, would draw more people to the individual monuments. For some time I have felt the need for instilling into the mind of the visitor the feeling that each individual monument is related to the others of the system(Southwest) and that his Southwest visit should include as many of them as possible. For example, I believe transparencies of the other Southwestern Monuments,installed at Casa Grande, would serve to attract visitors to our other monuments.

Before going too far into the problem of construction of life size figures in the rooms of ruins themselves, I believe careful thought should be given to the possibilities of dioramas telling the story as effectively, if not more so. Just now, without having weighed the problem as much as I'd like, I would say the use of both schemes might work hand in hand.

One of the fundamental weaknesses in our lectures and field trips is the necessity of leaving too much to people's imaginations. Nothing is more fascinating to human beings that the stories of the trials and activities of human beings of the past. However, we have only the ruins, the tools, weapons, and other things on which to base the story. Even as things are, the story of prehistoric peoples in the Southwest is powerfully appealing to most of our visitors. It occurs to me that a carefully thought out installation of dioramas, transparencies, maps and pictures, and other features of visual education, would contribute a most valuable element to our present exhibit scheme. I might add that the present museum installations at Casa Grande and Petrified Forest have included maps, diagrams and pictures in connection with the stories to be told.

During the month of March the following miscellaneous contacts were made:

Berkeley, California Business Men's Luncheon:-lecture 3/27/33 entitled "Exploring the American Southwest"--Attendance-----40

Berkeley Hi-Y boys, lecture, same subject as above, Att.----50
Date 3/28/33.

San Francisco-Everett Junior High School, illustrated lecture on same subject as above-------Attendance----------1800
Date 3/29/33.

Berkeley, California Commons Club:- Illustrated Lecture on the Southwest, subject "Pueblo and Cliff Dwellings of the American Southwest"----Attendance----------100
Date 3/31/33.

TOTAL MISC. CONTACTS FOR MARCH, 1933---1990.

While enroute Berkeley March 1st, I stopped in San Jose for about two hours to confer with Dr. Lyman Daugherty, Instructor in San Jose State College, regarding a new species of petrified wood he has described from the Petrified Forest National Monument. Dr. Daugherty has the support of some of the leading paleobotanists of the country in his work. He is affiliated at times with the Carnegie Institution and is very active in this phase of Paleobotany. There seems very good reason for believing what Daugherty has described as Shilderia adamanica is not only a new species but a new genus as well. Its anatomical relation to the tree groups generally is not even known.

Aside from having had the privilege and pleasure of participating in some most interesting undertakings in connection with the Exposition exhibits, which in itself was most valuable experience, I have had an opportunity to familiarize myself with the laboratory and library facilities of Field Educational Headquarters. There is also remaining, the fact that the Petrified Forest and Rainbow Bridge dioramas will be of permanent and lasting value to our Southwestern district. Just what disposition of these models will be made is not decided upon but they will find a place where they will probably be of most valuable in stimulating interest in the Southwest.

AZTEC RUINS NATIONAL MONUMENT

Custodian Faris reports as follows:

Visitors for the month total 235. Not as good as I had hoped or expected. Sundays have been disagreeable however and at this season Sundays are our big days.

The Cedar Hill highway will be completed before our regular season begins and we are hopeful of that being an aid.

Both rest rooms have received a spring coat of paint and in a few days will be opened up to the public with an even stronger reason for comment.

Paul Fassel has decided to move away and has left for Las Vegas Nevada. We will all miss him as he seemed almost a part of the Monument.

I have managed very well for an old "gummer". (Johnwill has had his teeth removed) Was to get an impression this morning but a slight infection will delay it several days. Dorothy is managing with visitors very well, in fact I fear almost too well from comments on her work. We Custodians will have to watch our H.W.C.P. or we will find ourselves mere janitors sure enough. I hope Julian, Rogers etc take this serious. I speak from comments direct from their quarters; so beware.

CAPULIN MOUNTAIN NATIONAL MONUMENT

Custodian Farr reports as follows:

The weather for the month has been the same as all of the past winter, very dry and windy.

A great many more visitors have come to the Volcano than any March before this one, the total being between four and five hundred for the month.

The road to the top of the crater has been open practically all the month and in fair condition although some places along the road have had to be repaired by the Custodian on account of slides caused by the extremely dry and windy weather. The Custodian expects to go up tomorrow with a couple of hands and remove the fallen rock.

The recent falling meteor caused many eyes to be turned toward old Capulin Volcano and many people thought that the old Volcano was coming into action again. However, the meteor passed by and all now is calm.

CASA GRANDE NATIONAL MONUMENT

Custodian Palmer sends in the following:

For the month of March I have the following to report for the Casa Grande National Monument:

The total number of visitors decreased this month from 3149 for March 1932 to 2564, a loss of 585 or over 18%. This loss is directly traceable, however, to the bank holiday and the main entrance road being closed for several days during construction, requiring a detour to reach the Headquarters. The statistics show a decided drop in attendance during these two periods. The attendance during the rest of the month was normal. These 2564 visitors came in 750 cars from 42 states, Washington D.C., Hawaii, and 12 foreign countries. 82% of the total number came from out of state with California furnishing 13% of the total number; Illinois was third with 98, New York fourth with 86 and Texas fifth with 55. These visitors were served on 283 trips through the ruins and 249 museum tours . Each visitor was personally contacted by some member of the personnel and given a full explanation of the ruins and museum.

General and Mrs. Harbord were two of our visitors on the 15th, Gene Tunney and party on the 8th, Superintendent Tillottson of Grand Canyon on the 17th, Dr. William Beebe, a noted Naturalist, on the 25th, Mr. and Mrs. Chris Jorgenson, formerly managers of the curio shop on Yosemite, now from Piedmont California, on the 26th, G. Souveleski from Yosemite on the 15th, Chief Ranger Lehnert, of Carlsbad Caverns, and his father and mother from Phoenix on the 5th, T.W.McDonough, of Jasper National Park, on the 5th, temporary Ranger Graves, of Carlsbad Caverns, on the 4th and 5th, Mrs. Kenesaw Mountain Landis on the 10th and Mrs. E.S.Schanbacker, Most Worthy Grand Matron of the Order of Eastern Star on the 18th.

A semi-annual statistical table of travel to this Monument showing the geographical distribution of visitors is attached. This table shows some interesting data. 3553 cars entered the Monument carrying 12244 visitors, an average of 3.4 people per car. The total number was 520 less than for the same 6months last year a decrease of 4%. 59 % of the total were from Arizona and 41 % from out of State. California furnished 14 % and Illinois was third and the balance came from every State in the Union, Washington D.C. , Hawaii, Alaska, and 13 foreign countries. In the 6 month period covered by the table 1435 guided trips were conducted through the ruins of Compound A and 1311 lectures were given in the museum. The average ruin party would be composed of 9 people.

The weather has been seasonal and very dry, no rain falling through the entire month. The mean maximum temperature was 79 - mean minimum 36 - mean 57. The maximum temperature was 87 on the 10th and 27th, the minimum 28 on the 6th, the greatest daily range 53 on the 27th. There were 25 clear, 4 partly cloudy and 2 cloudy days.

Casa Grande continued

In my February report I neglected to mention that Mr. Orin E. Taft of Chicago Illinois , a former resident of Arizona, donated to our museum a section of one of the original timbers which he removed from the Casa Grande in 1888. We were very glad to get this additional timber for museum display and Mr. Taft has our sincere thanks for his contribution.

On Suday March 26th four Indians from the Industrial Department of the Indain Service came to the Monument with a supply of rugs and Navajo jewelry for sale to visitors. These four are engaged in welfare work amongst the various tribes and the money obtained from the sale of the articles is returned practically 100% to the Indians making it, only enough being retained from the sale price to pay for the expense of handling it. The party was composed of two Oneidas, one Cherokee and one Pima. They do the work under the supervision of the Guidance and Placement officer of the Indian Service. On their next visit they were requested to also include Pima and Papago baskets which are products of the local indians. About $12.00 worth were sold on this first Sunday.

Our road work is completed with the exception of the removal of the surplus of fine rock that was left on the surface to protect the road until the asphalt had set thoroughly. This surplus rodk will be used to surface the shoulders.

This road work was done under an $8000.00 appropriation, half of which was regular and half emergency appropriation. The entrance road and parking area received an armor coat of asphalt and the service road was surfaced with Lay-Kolf, an asphaltic concrete. The armor coat was laid by the penetration method and the Lay-Kold was premixed and spread in place. The Bitumuls Co. who manufacture Lay-Kold sent their own inspector onto the job, both during the premixing by a Phoenix firm and the laying to assure that the work was done properly as this short section was put in to test it's suitability for general use in the National Park Service. He also stayed long enough to inspect most of the work of laying the penetration pavement on the entrance road and parking area. Mr. T. R. Goodwin, Road Oil Expert of the Engineering Department was in charge of the work for the Park Service.

About one-half mile of paths leading from the Administration Building to the ruins in Compound A and to the residential area were also put in using the penetration method of laying. Casa Grande has now been taken out of the mud (if and when any) and dust.

The work was of distinct benefot to the community and helped considerably in relieving the unemployment situation in this region. Only heads of families who were permanent residents were hired; each crew was given six days work; it was impractical to use the five day week six hour day principle because equipment had to be rented on an 8 hour day basis; a few key men were kept on for the duration of the work; 35 different men were used a total of 268 man

Casa Grande continued
DAYS or an average of 7½ days each; the total amount spent for labor was $1287.40; the subcontractor furnishing the rock and premixed material used 10 men about 7 days each on thisend of the job and purchased gasoline and oil locally for his trucks. $153.77 was spent locally for supplies $4943.52 was spent in Phoenix for rock and premixed material; the emulsinn was purchased through the Engineering Department and shipped by freight from the coast and cost delivered about $1500.00. Although the appropriation was not a large one it did a great amount of good in relieving distress in this vivinity.

Special mention should be made of one incident; it was necessary to rent a pressure oil distributor and only one such piece of equipment was available in this section of the country and the bidder thinking we were powerless and would have to pay his price bid $10.00 per hour rental; Mr. Goodwin advised that the award be held up a couple of days pending telegraphic communication with Colonel Thompson, Superintendent of Yosemite, as to whether he would be willing to send his distributor here with his own operators at Park rental rates, we to pay the men enroute and expenses which would have figured a rate of about $7.50 per hour. Colonel Thompson agreed but in the meantime the bidder had seen the light and realized that the hair he had ahold of was not as short as he thought it was and reduced his price to $7.50 per hour and also reduced his bid a dollar an hour on the roller necessary on which he was also the low bidder and the only owner in the district. Although it was unnessesary to accept Colonel Thompson's offer we certainly appreciated his willingness to cooperate with us to the extent of loaning us a very valuable piece of equipment.

This is also a fitting place and time to express my appreciation of Special Disbursing Officer Evenstad's cooperation in issuing checks whenever called upon to do so to help workmen tide over the time till pay day; changing crews frequently made it necessary to pay frequently and several times it was necessary to issue two checks to some man during his six day period of work so that he could get a few groderies. Spreading work out amongst as many men as possible makes more work for everyone concerned in the handling of the job than when a crew is put on to work straight through the job but everyone assumed his extra share of work with a smile so as to be of as much assistance as possible in relieving conditions. Mr. Goodwin was also inconvenienced greatly in changing crews so often but performed the work in creditable shape. He arranged the work so as to do as much as possible byh hand when it could be so done without increasing the cost. He has given us a mighty fine road and some good walks as cheaply as it could possibly be done and keep up a high standard. Our road program is now completed but there are still trails to be built.

Such cooperation and efficiency as was demonstrated in this road work is one of the reasons why it is a pleasure to be connected with the Park Service organization.

Casa Grande continued

Ed Rogers temporarily stationed at this Monument and who was so absorbed in mazes last month got off onto another subject this month and specialized on sun holes. His report accompanied by illustrations is being submitted separately and will be found mighty interesting. When Ed is told anything he doesn't believe it until he has proven it to his own satisfaction. His observations on both mazes and sun holes have been mighty illuminating and have brought forth many new angles that must be studied.

The material applied as a protective coating to the walls of one of the buildings in Compound A by the Air Spray Co. of Washington D.C. is turning out badly. It is checking, cracking and peeling off and has turned a very objectionable grayish color.

The Truscon Co. is planning a test next month but it will be carried on in an outlying ruin where if it turns out badly no damage will be done to main walls. The test will be applied by the laboratory expert of the Truscon Co. who has already made laboratory tests on material furnished him.

Assistant Architect Langley made a brief visit to the Monument on March 20th to inspect our road and trail work.

Some minor repairs have been made to buildings during the month.

Ranger Frank L. Fish made two new charts for our museum during the month. One shows the length of time of habitation of the various ruins and modern pueblos with dates as furnished by Dr. Douglass' tree ring method of dating. The other shows the location of the various National Parks and Monuments in Arizona, New Mexico, Utah and Colorado. Frank has demonstrated his ability in this line of work and probably will get plenty more of it from now on.

Our picnic grounds are becoming increasingly popular. Each week finds it used more and more. The Monument has become a meeting place for friends in various cities of the State who bring their out of State visitors with them, have a pichic dinner and see the ruins together.

The Monument has had much favorable publicity recently both in the local press of the State and in Science Service and other publications. The Arizona Automobile Association had a fine article in it's monthly publication which has been widely copied. Several articles have appeared in magazines about the new cover for the Casa Grande. All of this publicity is valuable advertising and brings us many additional visitors.

The month has been a satisfactory one from every angle. April will be the beginning of our slack season and visitors will fall off from now on until September because of the hot weather in this section during these months.

STATE	NO. CARS	NO. VISITORS	STATE	NO. CARS	NO. VISITORS
Alabama	2	9	Ohio	45	183
Arizona	2089	7298	Oklahoma	24	110
Arkansas	3	19	Oregon	15	59
California	662	1755	Pennsylvania	21	120
Colorado	65	186	Rhode Island	8	21
Connecticut	7	20	South Carolina	1	4
Delaware	2	5	South Dakota	4	17
Florida	2	10	Tennessee	5	28
Georgia	4	12	Texas	87	289
Idaho	5	33	Utah	17	69
Illinois	74	331	Vermont	0	1
Indiana	20	116	Virginia	2	20
Iowa	20	80	Washington	32	104
Kansas	22	65	West Virginia	3	17
Kentucky	0	14	Wisconsin	25	104
Louisiana	2	9	Wyoming	9	28
Maine	3	11	Dist. of Columbia	8	34
Maryland	4	19	Canada	7	45
Massachusetts	13	78	Mexico	4	16
Michigan	41	149	Alaska		6
Minnesota	18	72	Ireland		2
Mississippi	1	6	England		1
Missouri	33	131	Japan		1
Montana	2	17	Hawaii		1
Nebraska	23	78	Chibi		3
Nevada	4	13	Italy		1
New Hampshire	1	4	Scotland		1
New Jersey	10	39	Luxemburg		1
New Mexico	45	108	Germany		1
New York	53	252	France		3
North Carolina	4	9	China		1
North Dakota	2	4	Guatemala		1

TOTALS # 3553 cars 12244 visitors
1435 tours of the ruins
1311 museum lectures

TRAVEL STATISTICS FOR FIRST HALF OF 1973 TRAVEL YEAR CASA GRANDE NATIONAL MON.

EL MORRO NATIONAL MONUMENT.

I have the following letter from Mr. Vogt under date of March 23:

"This is written at our ranch at Atarque where I have been busy on the job of tanking. You will know, though some who read this may not, that tanking is building dirt reservoirs to catch the run-off snow water or rain water for stock watering purposes. I have completed three dams now but have worked myself sick, so I am going home to go to bed for several days to break this terrible deep chest cold.

"Before I go home I have to move my camp, men, teams, etc., about five miles to a new site where we have found a favorable location between hills where a rock spillway can easily be made. The names of the lakes we have provided for are Shoesti Lake, named after our jovial and efficient Zuni Indian cook, La Gallina or Chicken Lake, named after a white hen one of the Mexican drivers brought to the camp one night after a baile in the village 15 miles away. We ate the hen, though I have suspected it was a stolen fowl. At any rate it named the lake. The one just finished we call Chile Lake since at this camp so much chile was used that we had to leave in the interest of our innards.

"Last Sunday I took to El Morro a descendent of Cabeza de Baca, Miss Emilia Baca, of Santa Fe, whose mother is Secretary of State. She wanted to see the rock to see if any record of her distinguished ancestor had been left there. In her family there is a belief that he came through this region rather than further south when he got away from the Texas Indians. She found no record of Cabeza de Baca and, strange to say, not a single name of Baca on the rock any place.

"The gree feed is pushing up nicely out there and everything was very lovely. We ate our lunch at the fire-place on the south face under the pines. Though it was a cold day it was nice and warm there before the fire.

"C. N. Cotton, of Gallup, headed up a party that visited the Rock on March 8th but there has not been much travel.

"The weather the last few days has been frightfully cold and windy. Bitter winds have kept up all day and sometimes all night, a most unusual thing. One night it brought on a light two inch snow.

"Live stock holds up well despite the wind, though of course the cold retards the growth of green feed.

"Farmers are busy getting their plowing done, buying seed, talking crops, etc. Everyone feels very much encouraged since the President has taken the bull by the horns and tail and gone ahead in such a firm and confident fashion. Wool and lambs are up and everyone is full of hope. Even the songs of the birds seem to promise better times.

"I replied to Director Albright's letter about unemployment, listing about fifty persons who need employment in this region."

Those singing birds that E.Z. speaks of reminds me of that Indian who, hearing an owl hoot, said it was a sign of rain, that the owls knew when it was coming. A few days later, having his attention called to the fact that it hadn't rained, he remarked that it must have been a "Heap young owl!" Let us hope E. Z.'s birds are adults.

GRAN QUIVIRA NATIONAL MONUMENT.

Mr. Smith of the Gran Quivira National Monument says:

"For the month ending March 20, 1933, we have had 92 visitors in 24 cars entering the monument. It has been a poor month of travel, due to the financial strain which has affected all travel, and we had about as good a month as we had a right to expect.

"Weather conditions for the past month have been favorable, warm, but rather windy, which isn't uncommon for this part of the country during the month of March.

"Mr. K. A. Huey, who has the well drilling contract, has practically all of his equipment on the ground, but has not yet begun drilling.

"Our treasure seekers are expected to return to their diggings in the near future according to their report. Theyare to beging operations soon after the first of April. "

MONTEZUMA CASTLE NATIONAL MONUMENT.

It will be remembered that Mr. Jackson had the Engineers with him last month making a new parking ground. They are still there. Mr. Jackson reports as follows:

"As my last attempt at writing a monthly report has been accepted, I feel encouraged to try again.

"Our number of visitors rather exceeded our expectation for the past month, climbing up to 1006 by actual count. Heretofore, as you know, the number of visitors has been based on the number of names in the register book multiplied by two, for we figured that fifty per cent of the visitors climber the ladders to the Castle and registered in the book up there. This actual count rather bears me out that not fifty percent of them do climb the ladders as our book for the month only shows 303 names. I will of course have to check against the book for a longer period before I can give you anything definite.

"Among the visitors for the month were Martin Evenstad, wife and daughter, from the Casa Grande Ruins, Lee Mighell, and James Curry and wife. James Curry is a brother of Hugh Curry, Park Ranger here at the Castle, while Mighell is a cousin.

"Landscape Engineer, Langley, also spent a few minutes here on the 23rd.

"The telephone company installed a toll telephone box in the store during the month, which means that you can talk as much as you like if you have the money to pay for it! But even so we are glad to get it and will save the old Ford many miles and, as you know, the Park Service does not furnish a car, or any gas or oil forthis monument.

"In my February report I mentioned that Forest Supervisor, E. G. Miller from Flagstaff had paid us a visit, but I failed to state that he told us at the time that there was an outline of a very interesting prehistoric building on the flat to the south of us on the land that Davis now claims. Mr. Miller says that he saw them the first time in 1920 while surveying a line through the flat and that on returning to his office he recommended that the land be included in the Monument and was under the impression that it had been, but has since notified me by letter that it was not included, but

he is still strongly of the opinion that it should be. Engineer Attwell and Ranger Curry have since looked the site over and will probably have something to report on it.

Engineer Attwell gave an illustrated lecture before the Kiwanis Club at Clarkdale on the 22nd. It must have been well received as he has since been requested to give the same lecture at the High School.

Attwell and crew are still with us and as you said in your last report, 'When Walt gets on the job, the dirt begins to fly." To which I agree and he is getting a lot of work done. However in this particular case I think he is working himself, his men, and teams too hard and we have had several clashes on the subject.

Walt agrees with me on one thing and that is that our local Apache Indians are good workers and you can back us up in that as we are working several of the boys that you are acquainted with and who have given us good service in years past."

Sincerely, Jackson."

I have the following report from Mr. Attwell on the engineering progress at Montezuma Castle for the month.

"The close of this month finds the construction work at the Montezuma Castle Road and Parking Area within two weeks of completion.

"The new road has been completed with all drainage structures in place. The parking area has been graded and rounded into shape. The rubble masonry walls will add much to the appearance of the project. They are neat and well built. They are made of malapai stone which blends well with the permanent structures and helps to lessen the white glare of the limestone cliffs. The curb has been placed around the central island planting there is in progress. The red sandstone flags add much to the appearance of the walks. Materials have been reasonable, the weather excellent and laborers have worked effeciently, all of which helps to make the unit costs fair.

"The crews have been selected from the destitute bread lines. Men from Camp Verde and the locality near the Castle were good laborers. The men sent over from Cottonwood and Cornville (30 miles) were, on the whole, the poorest that I have ever used. The County's dole system has taught the destitute that the man who works receives the same pay as the man who goes fishing or the man who looks for bee trees.

"We are using a few Indians from Camp Verde who have proven themselves to be the best laborers we have had. They work hard, do their work well and spread no radical propaganda. I was told that I was supposed to work no one locally but all men from Cottonwood, 30 miles away, and bar all local men which would exclude Indians. I have used at least one Indian all the time. At present I am using four Indians and 20 white men.

"During the excavation of the parking area one prehistoric stone was found. There were six inches of ashes and charcoal immediately over it which was overburdened with 50 inches of decomposed limestone. This stone was rectangular in shape being 18" by 20" and 4" thick, with a four inch round hole through the center. It was dressed on all sides.

Ranger Curry believes that it was used as a cover for a subterraenean chamber in one of the living rooms where corn or trinkets might have been cached. Other theories are based on the assumption that this stone might have made the entrance to shipapu.

"Ranger Curry and I visited the area which is locally referred to as a prehistoric grave yard for the people of Montezuma Castle. This area is due south of the Castle a distance of 1/4 mile in the Coconino National Forest. It is in the center of the land formerly cultivated bythe inhabitants of the Castle. The area is bounded by a prehistoric walk five feet wide with a dry stone coping on each side. The area contains about two acres and is oval in shape. In it there are many small mounds of small rocks resembling graves. Dozens of these mounds have been recently excavated but the material shows no signs of bones. It is easier to believe that this could have been some kind of an offering to the gods than the cemetery idea.

"On March 22, accompanied by Ranger Curry, I gave an illustrated lecture on "Our National Parks and Monuments" to a small group of Kiwanis Club members at their regular meeting in Clarkdale, Arizona.

"So endeth my report for the month of March, 1933."

Walter G. Attwell.

NAVAJO NATIONAL MONUMENT.

I have the following short letter from John Wetherill:

"Dear Frank:

I want to get to work on the trails in the Navajo Monument as soon as I can get my horses up from their winter pasture.

"The first party left here for the Ruins today, and they expected to walk a part of the way.

"We are looking for a lot of travel through here this summer as the roads are much improved and the Government is keeping a crew busy most of the time. We have a grader and cat at work and a crew putting in bridges.

"The Piute Strip was made Indian reservation the first of March.

"I am, sincerely,

John Wetherill.

"P.S. Mrs. Wetherill read this letter and made me add this P.S. with her best regards to yourself, children and your Mother, and she tells me not to forget your rangers."

PIPE SPRINGS NATIONAL MONUMENT.

Mr. Heaton writes toward the end of March that spring has come at last and he has seen several flowers and a lot of weeds are coming up. the trees are beginning to show buds and a little green.

He says the Utah Pioneer's Trail Association is making plans to put up their marker at Pipe Spring some time in May and wants to know where we think the best place would be for it. He says some want to put it on the old fort. This will have to be put up to the Division of Design.

PETRIFIED FOREST NATIONAL MONUMENT.

Following is Mr. Smith's usual good report of the doings at the Petrified Forest for the past month:

"Dear Mr. Director:

"The following narrative report for the monthly period including March 27, 1933, is submitted.

"In general, conditions are good in the Petrified Forest National Monument. Travel is picking up and the Bank Holiday seemed to have very little effect in the number of people visiting us. The Southern California earthquake caused a slight swelling in east bound travel for a time.

"The weather has continued mild, ordinary spring weather with cold nights. The highest temperature recorded was 71, and the lowest was 21. There were 19 clear days, 6 part cloudy and 4 cloudy.

"Associate Highway Engineer, W. R. F. Wallace, of the Bureau of Public Roads, was here on the 20th and all roads were inspected with the Superintendent. Some protection work will be necessary on the island above the Rio Puerco Bridge and recommendations for this work were made by Mr. Wallace. Assistant Architect Harry Langley arrived on March 24 and much was accomplished on that afternoon. On March 25 Mr. Langley, Mr. J. H. Brannan, Associate Highway Engineer, B.P.R., and myself spent the whole day in consideration of the various problems connected with the proposed projects. The proposed line change north of the A.T. & S.F. R.R. was studied and the change approved, borrow pit locations were selected for the grading of the proposed north connecting road with U.S. Highway 66 and further study was made of the proposed rim road in the Painted Desert Section.

"Mr. Hurst R. Julian, Custodian of Chaco Canyon National Monument arrived March 18th with his party and spent the next day at the Monument leaving for Chaco Canyon on the 20th.

"Mr. A. H. Womack, who has been in charge of water development for the Indian Service in the southwest for many years, and Dr. H. E. Neuffer, Supervising Engineer, Fifth Irrigation District, Indian Service, Albuquerque, New Mexico, came in on the 11th to confer regarding the possible loan of a well drilling rig with crew for the completion of our water well here. This matter has been communicated to your office and proper action is being taken which should result in great benefit to the Service.

"An informational road log was prepared and mimeographed which should be of great value to the public in pointing out interesting places within the monument.

"On invitation of the Rotary Club of Holbrook, the Superintendent made a few remarks to the gathering on March 3. The subject was WHAT BENEFIT ARE NATIONAL PARKS AND MONUMENTS TO ADJACENT COMMUNITIES AND VICE VERSA?

"Our roads have been kept in first class condition throughout the month. Considerable work was necessary to fill up the shoulders where they had been washed out by the rains and melting snows last month.

"In cooperation with the A.T.&S.F. R.R. the farm grade crossing just inside our west boundary was opened up to the tourist and other travel.

Old rails were loaned by the railroad and cattle guards were installed. This is a much better crossing than at Adamana as the visibility is much better and it is a great convenience to the public as the distance to the Painted Desert Section is shortened by more than a mile and a half. Also there was a bad mudhole north of the tracks and west of our boundary in which several cars had been mired so deeply that they had to be pulled out. Then too a sign had been erected north of the tracks and east of Adamana which warned travellers that passing over was prohibited.

Complaints were received from the Pickwick stages and others who were using the Painted Desert Rim Road from U.S.66 around the Painted Desert Inn as to the condition of this road. Consequently by cooperation with the owners of the Paitted Desert Inn this road was repaired and a few changes made. The proprietor of the Inn furnished three Navajo Indians and one white man for this work while we furnished a truck and driver for eighteen days. In this manner the road was put in first class shape for the spring and summer travel. Such minor changes as were made were approved in advance by Assistant Architect Langley last fall.

"From t e eleventh to the fifteenth a crew of three men were employed in the erection of the standard metal signs which were purchased last fall. These are a great improvement and a benefit to the public.

"The State, as a federal aid project, has just finished grading and gravelling 33 miles of U.S. Highway 66 east and west of Holbrook, Ariz. With the oiling of these in the near future, and the finishing of one more link to the east, and the work being completed west of Williams, U.S. 66 will be in fine shape all the way to the coast.

"A small band of antelope, consisting of about ten, is seen daily about a mile west of our boundary on U.S. 260.

"The Museum is kept open daily from early to late. This is the only special educational service we are able to present at this time.

"As stated, there seems to ba a steady increase in the travel through the Monument on account of the Rio Puerco Bridge and our connection with U.S. 66. Including the travel contacted at the Checking Station in the Painted Desert Section, there is more than double travel over last year. The actual increase to date of those passing through the Petrified Forest Section is 3%. The increase in the grand total, including the Painted Desert Section to date is 132%. A tabulation of this travel follows:

For the month, Petrified Forest Section,	Cars	970,	people	2,844
Previously reported " " "	"	4,514,	"	12,807
Total to date " " "	"	5,484	"	15,651
For the month, Painted Desert Section	"	1,383	"	4,542
Previously reported " "	"	4,547	"	15,137
Total to date " "	"	5,930	"	19,679
Grand Total for March 193	"	2,353	"	7,386
Grand Total to date	"	11,414	"	35,330
Last year, same date			"	15,181

Each state, the District of Columbia, and seven foreign countries were represented in this travel. On the last day which is included in

this report, two states, Maine and New Hampshire remained unrepresented. However a car drove up which showed a Maine liscense with two men as passengers. On registering, one of these men was found to hail from Maine while the other was from New Hampshire. Thus these two states were saved to make our list complete. Two cars have camped in the camp ground overnight during the month.

"Noted visitors include: Major General and Mrs. J. G. Harbord, U.S.A. Miss Margaret Kubel and party, of Washington, D. C., Mrs. Mildred Schaubacker, Most Worthy Grand Matron of the Order of the Eastern Star., Mrs. B.E. Marks, Phoenix, Arizona, Worthy Grand Matron, O.E.S., Arizona.

"Foreign Countries represented were: Canada, Mexico, England, India, Denmark, South Africa, Germany, Norway and Russia.

"No official trips have been made outside the Monuments.

Very Respectfully,

Chas. J. Smith, Superintendent."

PIPE SPRING NATIONAL MONUMENT.

I have the following report from Mr. Heaton, covering the month before March 24th.

"The spring weather is here and brings as usual the spring fever of causing everybdy to clean up around their farms and get their spring plowing and seeding done. It seems that something is missing this year on account of having given the water to the Indians and not having the fields to plow and prepare for some kind of crops.

"I am cleaning out the ponds and fixing up the grounds in general. I am rebuilding some of the rock walls around the ponds that have started to fall because of weather conditions.

"Dr. Farrow, of the Indian Reservation, with Mr. Lindquist, an inspector for the reservation, was here two weeks ago and we talked some about the water. The impression I get from them is that there will be no water for the meadow and the trees, but, as I wrote you on the 20th, I will try to get them to use the ponds here to store the water, and also to concede to the Monument four days out of every twelve days for the purpose of watering the meadow and trees.

"The travel has been on the increase this month. An average of five cars each day, some stopping, others going by as if in a hurry.

"I am looking forward to an interesting time when you and Bob Rose get up here for there are many questions I want to discuss with you; your visit cannot be any too soon to suit me."

TUMACACORI NATIONAL MONUMENT.

Mr. Boundey sends in the following report:

"Our visitors for the month totalled 783.

"A number of artists were painting at the Mission during the month.

"Among those who registered were General Harbord and wife, Col. Knox and Luch Pershing. General Pershing was a Lieutenant around here during the Geronimo campaigns.

"Mr. Goodwin, of the Engineering Division, has the new parking place well under way. We are employing only heads of families and the most needy.

"As all the people in this vicinity are receiving help from the Nogales charities, the money we are spending here is very much appreciated in Nogales.

"For March there has been very little wind and if it hand't been for the gasoline engine at the windmill we would have been badly handicapped with the cement work.

"For the eleventh year that I know of, a Say Phoebe is nesting in the same nest in the sacristy at the Mission this year. She made a number of repairs to the nest. Last year she raised two broods instead of the customary three.

"Mr. Langley, of the Landscape Division, inspected the work here last week."

George L. Boundey,
Custodian."

IN GENERAL.

The reports for the month would indicate that weather conditions were as good as usual at this time of year and that we are having about the same flow of traffic that we had last year at the same time.

At Casa Grande we have noted the reduction of Texas and southern states cars which ought to be on the road at this time and it may be that two months from now the same lack will be noted at the Petrified Forest. At least I am willing to guess it will show up there.

We have received orders that all '34 construction money is impounded, which didn't affect us very much as our '34 construction money was pretty much of a microscopic affair.

We were very happy to find that we had a new Custodian job at Bandelier National Monument after July 1, and a new Junior Park Naturalist job to be filled at the same time. These we do need the worst way and we certainly thank the Bureau of the Budget, the Appropriation Committee, and especially the Washington Office for defending these positions and getting them through. We will still be undermanned but there will only be two or three monuments where the conditions will be critical.

Mr. Julian has gone back into the Chaco Canyon National Monument and is prepared to receive visitors there for the summer months.

Mr. Rogers will go back to Bandelier during the month of April.

In general, things are going well among the Southwestern Monuments.

Cordially,

Frank Pinkley

Superintendent.

The
February Supplement
to the
Monthly Report
*****

Interesting things which don't quite
fit into the regular report.
****

THE CASA GRANDE SUN-HOLES.

We have long known that there were two holes in the eastern walls of the Casa Grande Ruin so aligned that, it is probable, in the ancient days the rising sun shown through them putting a spot of light on the back wall of the center room for some two or three minutes at sunrise on about the seventh of March and the seventh of October each year.

Ed Rogers, who has been on a special detail at Casa Grande during the month, became interested in these holes and carried out much the most careful observations which have ever been made of them. His observations began on February 28th and ended on March 18th.

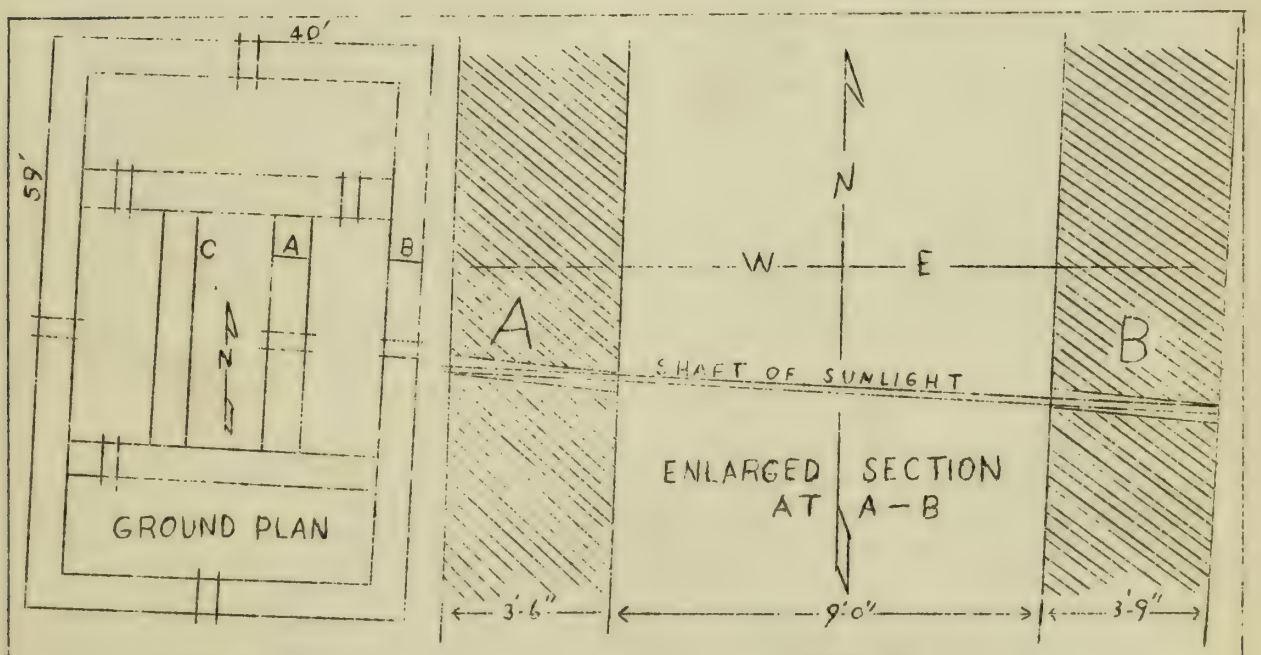

FIG. 1 FIG. 2

The Casa Grande is a prehistoric structure approximately 40 by 59 feet having the five room plan shown above and the two sun-holes are placed at A and B as shown in figure 1. The theory is that the sun in rising on about the seventh of March in the spring and the seventh of October in the fall would rise at the proper point on the horizon, which would be about south 88 degrees east, to shine through the hole B, across the room and through the hole A, casting a spot of sunlight on the back wall of the middle room of the ruin at the point C.

At the eastern end of the hole A the plaster and wall are broken back several inches, so by means of a wooden frame Ed erected a sheet of cross section paper in the plane of the original plaster surface. He then went into the middle room and, from the west end of the hole A, projected the hole on the back of his sheet of cross section paper in the plane of the original plaster surface, and cut that disc out of his paper. The hole in the paper sheet then represented, with an error of not over 1/10 of an inch, the original end of the hole in the plaster at the east end of the hole A.

We come now to an explanation of Figure 2, which is an enlarged section of the holes A and B shown in Figure 1.

It will be noted that the holes A and B in the ground plan of Figure 2 do not line up precisely, the drawing purposely showing a distortion of this effect in order to make it plain.

Ed is of the opinion that this is an accident of construction; that without instruments of precision they would have not been able to bore the holes in a precise line.

It will be noted that the effect of this distortion of the holes is to produce a smaller sun-spot at the point C, Figure 1, on the back wall of the center room.

The hole B is approximately three feet nine inches long and 1.7 inches in diameter. It is thus of sufficient size to allow the sun in its northern journey along the eastern horizon to shine through this outer hole B from the 27th of February to the 15th of March. This would have been too long a run of days to give a precise dating, and this is taken to be the reason for the second hole A, for as the sun travelled from south to north along the eastern horizon morning after morning, it would shine through the hole B first casting its spot to the north of the hole A and then, morning after morning, coming closer and closer, until about the 6th or 7th of March it would fall through the hole A and make a sun spot at C on the back wall of the middle room.

It was this effect which Ed set out to study.

We come now to a description of Figure 3, which is a reproduction in full size of that portion of Ed's chart of the sun's rising, with certain corrections, which are directly connected with the study. This chart was set, it will be remembered, over the east end of the hole A in the plane of the original plaster.

The chart was divided into inch squares. The east end of the hole A is represented by the circle XY, of which the cross hatched portion, Y, represents the actual field of the sunlight which was thus reduced from the full field by the distortion of the holes from a true line as explained in Figure 2.

It will be noted that on March 4th the sun, rising to the south of the hole B, shown through that hole and cast the spot of light underneath and to the right of the circle XY as shown in Figure 3 under March 4th. Unfortunately this was a cloudy morning and the clouds did not clear back and allow a bright spot of sun light to show until several minutes after sun-up. Thus the record of this morning was not of much value.

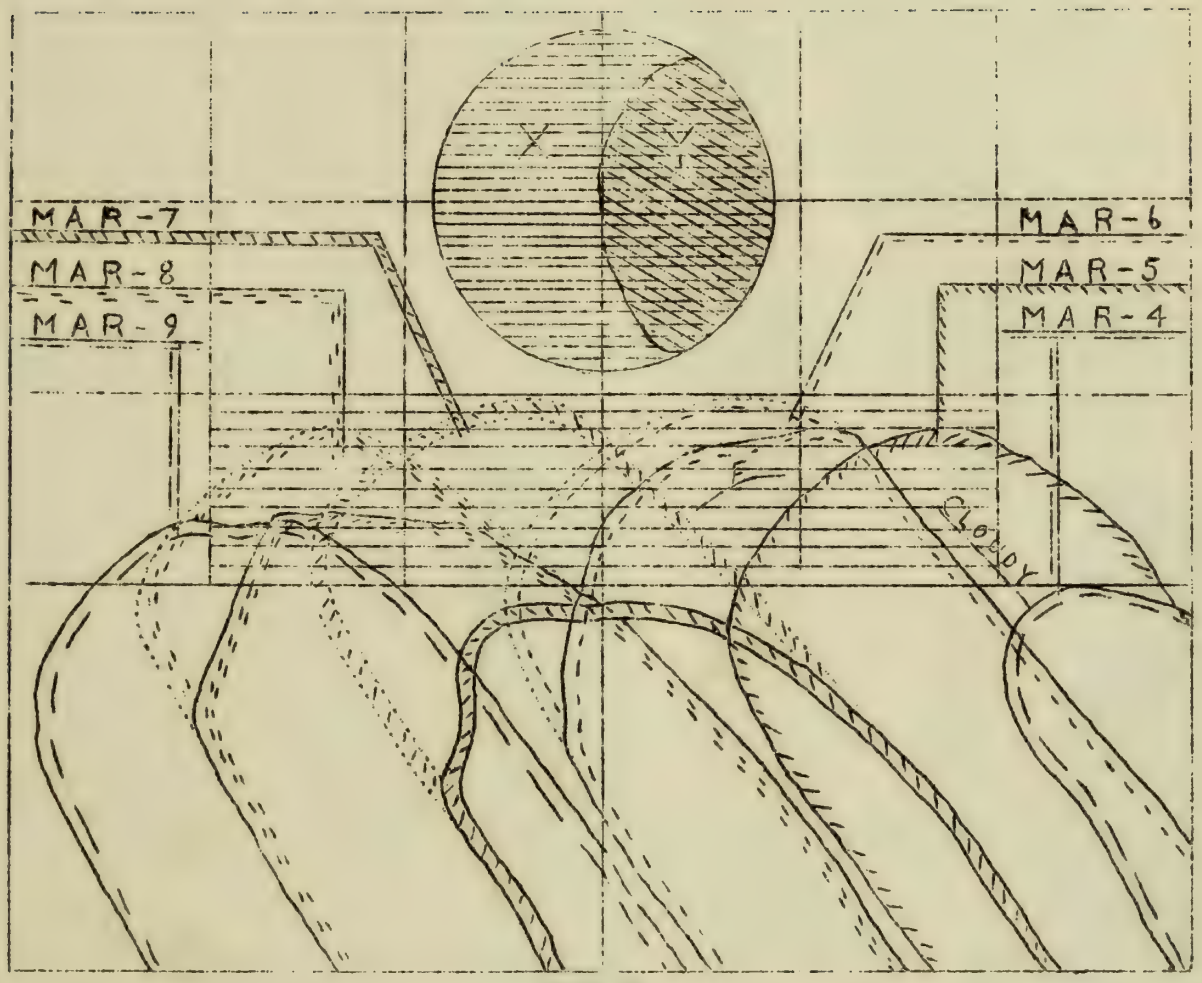

FIG. 3

March 5 was clear and the spot fell at the point shown under that date and went downward and to the right.

It was here that Ed discovered that he had an interference of the Chief Clerk's residence to the east of the Casa Grande. That house had been built in the line of these holes and the top of the chimney formed an artificial horizon just that far above the true horizon over which the sun came up behind them.

The method of making allowance for this error and projecting the sun-spot upward to where it should have appeared if the residence had not interfered, was as follows: I stood to the south far enough to sight past the residence and see the true horizon and, at the moment of actual sun-rise, called the time to Ed. He, watching the chart, circled the sun-spot thereon as soon as it actually appeared and again checked his time. He then figured the elapsed time and let the sun-spot sink to the right and downward that same number of minutes, when he checked its upper limit at the point F. It was then a simple matter to project the line where the sun would have appeared as far above the line where it did appear as the

point F was below that line and thus we get the dotted and dashed line above the solid and dashed line of March 6th. On March 7th he found further interference which dropped the actual sun-spot down to the point shown, but a similar method of projection brought it up nearly, but not quite, on a level with the spot of the 6th.

The spot of the 8th was projected in the same manner but fell a tenth below that of the 7th and far to the left of the vircle XY.

The spot of the 9th was so far to the left as not to enter his problem, so it was not projected upward.

A study of Figrue 3 will show that the sun-spot fell equally distant from the circle XY on the 6th and 7th but, at its nearest point as shown by its upward projection, failed by some two or three tenths to reach

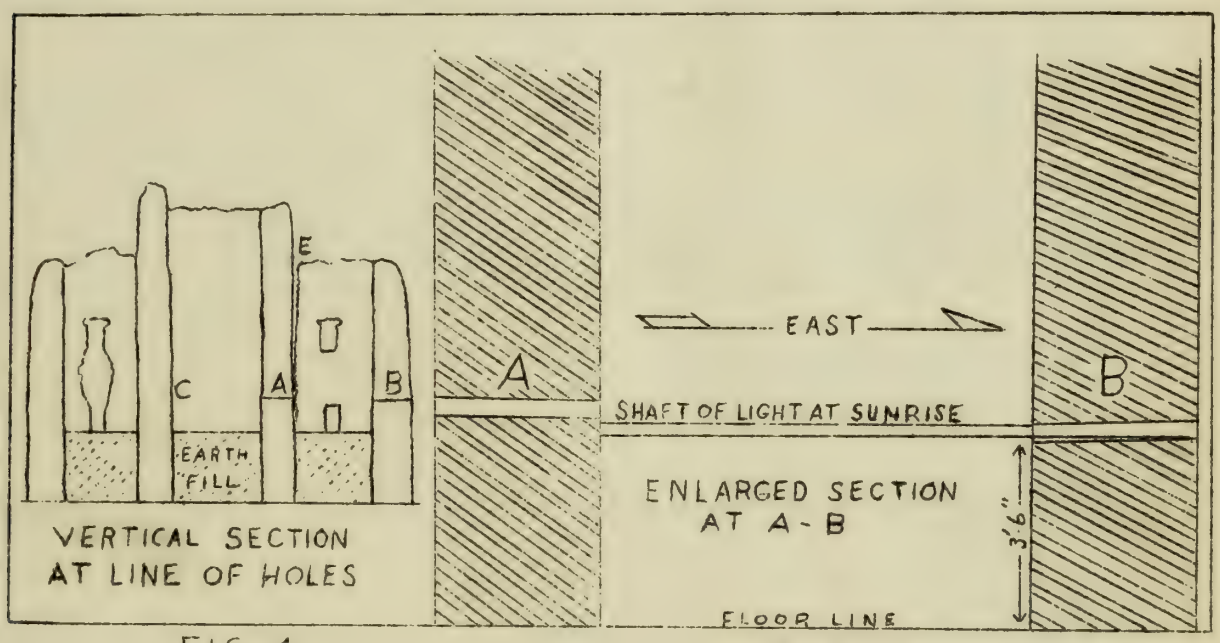

FIG. 4 FIG. 5

the circle XY. For an explanation of this failure we must study Figures 4 and 5. Figure 4 is a vertical section of the Casa Grande through the holes A and B, showing their relative position in the building on a vertical plane. It will be noted that the first story of the ruins was filled with earth at the time of construction, so the holes A and B are about three feet six inches above the floor level of the second story, or some eleven feet above the ground outside. Figure 5 is an enlarged section of the holes A and B of Figure 4 on the vertical plane just as Figure 2 is an enlargement of the holes of Figure 1 on the horizontal plane.

In the vertical plane of Figure 5 it is seen that the holes A and B are not in line in this plane any more than they were in line on the horizontal plane. This distortion is due in part to the fact that the holes were probably never drilled in a precise line and, in part at least, to the fact that the wall containing hole B has settled outward as is proven by a crack, marked E, Figure 4, at the junction of the cross wall between A and B

where this cross wall joins the wall containing the hole A. This crack is about an inch wide at the top of the wall and is reduced to nothing at the bottom. This means that the top of wall B has settled outward about an inch and downward about three quarters of an inch and the hole B has changed its original location to the same extent.

If the wall B were raised the distance which it has settled, then the light falling through the hole A on the morning of the 6th and 7th of March as shown in Figure 3 would have fallen about eight tenths of an inch higher which would have made it fall on the circle XY.

Due to the fact that the warping of the holes in the horizontal plane as explained under Figure 2, leaves that portion of the circle marked X and lined horizontally, in the dark, it can be seen that the sun-spot of the 7th would not have shown through the hole A and across the middle room to the point C if the wall B were raised to its original position.

On the other hand, the sun-spot of the 6th, if the wall B were raised to its original position, would strike on the cross-hatched portion of the circle XY marked Y and would have shown through to the back wall of the middle room, and this would have happened on that morning only in the northern journey of the sun.

From these facts the conclusion would appear that the second hole A must have been drilled to cut the sixteen or seventeen days on which the sun would shine through the outer hole B to the one definite day on which it would shine through the inner hole A and put a spot on the back wall of the middle room.

From this event a calendar might have been dated which would have given the inhabitants a precise civil year for they would have, in effect, hung their civil year on their solar year and the sun would have checked both.

Further observations of this detailed character will be made next October and a report at that time will be rendered on the fall repetition of this event.

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Rogers died before the could check it. D.H. 3/26/65

The bound copies of the Superintendent's reports for the months of last October and November reached our desk about a week ago, coming in just 24 hours apart, one set having caught up with the other some place along the way. Well, it made a sort of deluge of reports, all the news of course being somewhat out of date. Four of us around the headquarters here read them and got them out in two or three days and then were talking about the impressions sixty or more reports at one sitting left on our otherwise blank minds.

My own impression was that you could have run a fine meshed seine through that ocean of reports and you wouldn't have brought up a handful of facts about visitors. An archaeologist five hundred years from now getting hold of those reports would guess that the Park Service was in the contracting business but he would never suspect that the main line of work was handling visitors and sending them away with as full knowledge as possible of the place they had come to visit.

In our own minds we have decided to try to correct this matter in our own reports in the future.

Bob Rose says that one of the highlights of his trip to Berkeley was his visit to the San Francisco Office of the National Park Service. The visit was very pleasant and instructive. The Division of Plans and Designs was in the midst of the preparation of Master Plans most of which were gone over together at that time. All who had worked at one time or another in the Southwest asked to be especially remembered to our Southwestern personnel. Among these were:

H. A. Kreinkamp, Architect, and Bob says on several occasions he did justice to dinner engagements with the Kreinkamps.

Chuck Richey, Architect, who, with Mrs. Chuck, who is still new to us in the Southwest, visited the preview of exhibits in Giannini Hall.

J. P. Hamilton, Engineer, the "Two pants Jim" with whom the Faris and Julian families have worked out the engineering problems of their monuments.

Francis P. Farquahar, Editor of the Sierra Club Bulletin, asked to be especially remembered to the Boss.

Mr. and Mrs. Andrey Borell visited with Bob at the laboratory on several occasions. It will be recalled that the Borells were Southwestern Monument visitors last summer.

We haven't been able to get out into our own bailiwick this month and gather the personal items of our own organization, but it won't be long until we will be going hither and yon and finding out how everybody survived the winter and the Bank Holiday and the 15% shave, and whether there are going to be visitors enough this summer to go round and still keep us all busy.

Cordially,

The Boss -

SOUTHWESTERN MONUMENTS

MONTHLY REPORT

APRIL — 1933

Tumacacori National Monument

TABLE OF CONTENTS.

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
SOUTHWESTERN MONUMENTS
COOLIDGE, ARIZONA.

May 1, 1933.

Dear Mr. Director:

Our calendars tell us that all too soon another month has slipped into the past and thus we are reminded to oil our typewriters, limber up the fingers, and record once more what the members of our widely scattered personnel have to say about their activities during April.

Report of the Asst. Sup't.: (By Bob Rose). "Leaving Berkeley, Calif. on March 31st, late in the afternoon, I arrived at Casa Grande Nat'l. Monument on the evening of April 2nd. My section of the March report carried an account of the diorama style scenic models which were prepared in the Park Service laboratories at Field Educational Headquarters on the University of California Campus. Since returning to Coolidge, Mr. Hall has sent us some very fine photographs of the completed models.

"During my absence of more than a month on this work in Berkeley, a great deal of general correspondence along with papers and journals dealing with Southwestern subjects accumulated. As time has permitted, this correspondence and filing has been attended to.

"Two hundred copies of a mimeographed information circular on Montezuma Castle have been prepared and distributed. After carefully checking errors, omissions, and the general reaction of visitors to the circular, necessary corrections and revisions will be made preparatory to printing several thousands. One of these circulars is attatched to this report. A similar sheet is being released for Bandelier National Monument. Ranger Edgar Rogers prepared the illustrations on both circulars and has given valuable assistance on the text material.

"Dr. C. P. Russell, Field Naturalist, arrived from Berkeley on April 17th. I have spent considerable time since his arrival on assembling information for charts and maps for the museum. Illustrative charts and maps on (1) Migration of the Salado People": (2) Dates of Construction of Pueblos and Cliff Dwellings of the Southwest and Correlation of these with important dates in history; and (4) a map and chart showing present day pueblos and Indian Reservations with key to linguistic stocks, are the archeologic and ethnologic subjects chosen for the &&&&& main exhibit rooms. Interesting and instructive drawings and

labels on the Rattle Snake and the Gila Monster have been prepared by Dr. Russell as a part of our natural history exhibits. In response to our request for a little sketch showing poison gland anatomy and mechanism of Heloderma, Dr. L. M. Klauber of the San Diego Zoological Society very graciously responded by having prepared for our use photostat copies of some very important reverence material on the subject. We greatly appreciate the interest and cooperation Dr. Klauber has extended to our organization on many occasions. He is interested in the ideals of educational work in the National Park Service and always renders valuable assistance and cooperation whenever called upon.

On April 25th I accompanied Dr. Russell to Tumacacori National Monument to review with him the possibilities of our museum development there. I returned to Casa Grande on the 27th in time to meet a local speaking engagement while Dr. Russell stayed over until the following day. Good opportunities for museum expansion exist at that monument since the old Padres' Quarters are used no more as residence for a ranger. After returning from Tumacacori I spent some time assembling all of our maps, charts and other material for framing.

"Graphic portrayal of information where brief, concise labels; vividly contrasting colors, and other visual methods are used, is very sound educational business, I believe. We have been observing these points in the material we have prepared.

"I have the following account of miscellaneous contacts to report for April: These include two Yosemite Valley groups which should have been added to last month's totals:

Illustrated talk at Ranger's Club("get-together")	100
" " Yosemite School	100
Talk without slides-Phoenix Ariz. Rotary Club	160
Illustrated Talk-Federal Employees Assn--Tucson, Ariz	100
Total------	360

"Counting talks made by Custodian Hilding F. Palmer, Engineer Attwell, and others of our permanent ant temporary personnel, miscellaneous talks since Jan. 1st have reached more than 4500 people.

AZTEC RUINS NATIONAL MONUMENT. On May 1, I received a telegram from Dorothy saying that the visitors for the month totalled four hundred sixty-eight and that a Mormon Mutual Convention for that district had been held at the Ruins during the month. She then added that she had brought Johnwill to the Farmington Hospital the previous Thursday but that he was getting along nicely and she expected to return to Aztec Monday. I wired her at once to put Thommy Thompson on if she needed him and asked if there was anything we could do, but have heard nothing more and so conclude she has everything in her very capable hands and it is just another case of the H.C.W.P. being on deck and taking charge when the Custodian is knocked out. We all hope Johnwill will make a speedy recovery.

CAPULIN MOUNTAIN NATIONAL MONUMENT.

Mr. Farr reports as follows:

"Four hundred visitors this month. All surrounding roads are in good condition; have been open all winter and are in far better condition than usual. The road on the monument has been in fair condition all winter with the exception of some sloughing of lava or cinders, but this has been removed and the road kept passable at all times.

"The weather is mostly dry, although there is a light rain today. We are having the usual windy weather for this time of the year.

"The Custodian and his family enjoyed a very delightful trip through the Carlsbad Cavern on the fifteenth of the month and met with a royal reception from Superintendent Boles and his Rangers. They are all certainly a splendid bunch of scouts. Although as busy as bees all the time, they were never too busy to extend every possible courtesy to us and to all others there. Undoubtedly the entire bunch at the Cavern are a loyal asset to the Park Service. Mr. Keck, Mr Kendall and Mrs. Spencer, handling lunches, curios, etc, were just as good and helpful as they could be. I would advise every one of our Park Family to visit the Cavern when possible."

I might warn Colonel Boles that stuff like that takes space rates in our Monthly Report and he can set aside a nice sum to cover our bill at the end of the month.

CHACO CANYON NATIONAL MONUMENT.

Mr. Hurst R. Julian, Custodian, reports as follows under date of April 24.

"Dear Boss: This monthly report is almost a six weeks report. Since there was so little to report for the month of March, and since I did not arrive at the Chaco until nearly two thirds of the month had passed, I decided to include the last ten days of March with the April report.

"We have had 295 visitors from fourteen states, Washington, D.C., and from Ireland. Rather more than we had expected from conditions associated with opening the Monument to travel for the beginning of the season.

"Perhaps the reason, or one reason, was that as soon as I arrived the surrounding gateway towns were notified of our opening and

immediately started directing tourist traffic this way.

"The construction work has not really been started, but everything is in readiness for the beginning as soon as we can get an engineer to take charge of the work. Most of the necessary preliminaries have been attended to.

"The progress of the proposed land exchanges gives us hope that some day we may eliminate much of the alienated land which is now within our boundaries.

"It appears that we will also soon be rid of the sheep which have done so much damage in the past. The arrangement with the State Institutions gives us practically complete control of the situation. The assistance of the Indian Service representatives was pledged also. They are preparing to move the Indians who have large bands of sheep, back on the reservation.

"Among the distinguished visitors to this Monument was Mr. S. F. Stacher, Superintendent of the Eastern Navajo Agency, who visited us twice during the month. On March 26 and on April 6, he brought parties of friends with him.

"Several parties of Indian Service people have spent the day here with us. We are glad they feel inclined to make this their place of recreation. Their cooperation and excellent will is appreciated.

"April 2 was an interesting day, largely due to the party which the Faris family brough with them from Aztec. Johnwill is helping boost our attendance.

"April 10 was another busy and profitable day. We had a party of University of New Mexico Visitors which included Mr. and Mrs. Reginald Fisher and Paul Walter Jr. Also a party of U.S.G.S. men who staid well into the next day. In this party was Mr. Herman Stabler, Chief of the Conservation Divisiton. Mr. Stabler offered several profitable suggestions upon the matter of erosion control and is going to send further information at an early date. His interest is gratifying.

"Mr. Edward Lawler, of the International News Service, was a visitor on the 11th and 12th of April. He apparantly is commissioned to find points of interest which can be featured in a program of, "Buy American, see America and sell American", or some such slogan which, I believe, is sponsored by the Hearst newspapers. He seemed much impressed with the Chaco and it may mean that we will be featured by that bunch of newspapers."

CASA GRANDE NATIONAL MONUMENT.

Mr. Palmer comes up smiling like the cat that swallowed the canary. He reports as follows:

"April has been a satisfactory month from every angle. First on the list of pleasing things is that our attendance increased from 2284 for April, 1932 to 2927 for this month, making April the high month to date for this travel year by several hundred. This gain of 643, or over 28% is very gratifying and may be an indication that we have at least turned that much talked of corner around which prosperity has been lurking and that things are on the up-turn.

"These visitors came from 38 States, the District of Columbia, Alaska, and three foreign countries. 1,018, or 34% were from out of state, of which California furnished 17% or 501; Illinois was second with 60 visitors; Texas third with 53 and Colorado fourth with 41. 835 cars carried the total visitors, an average of 3 1/2 visitors per car.

"These visitors were all personally contacted on 301 trips through the ruins of Compound A and the Casa Grandd, and 255 museum lectures.

"Another high light of the month is the favorable publicity the Monument has had through local agencies. On the 18th, Major M. A. Strange, who conducts a regular travelogue four times weekly over Phoenix radio station KTAR, took as his subject, the Casa Grande: The Arijona Automobile Association devoted a page in its monthly magazine to a description of the wonders to be viewed at this Monument: the Arizona Republic is running a series of articles by Prof. John Murdock, Historian of Tempe State Teachers' College, in which the Casa Grande has been mentioned several times. All of these articles and talks have done much good in inducing folk to visit the Monument, in convincing them that the Monument is an asset to the State of Arizona, and that the National Park Service is doing a great work in preserving these landmarks for future generations.

"The Custodian delivered two addresses during the month on the Casa Grande National Monument as an asset to this community and the State; one to the Coolidge Chamber of Commerce and one to the Parent Teacher's District Convention held at Coolidge.

"On Easter Sunday, April 16th, the local churches of Coolidge, Florence and Casa Grande, held a sun-rise service on Compound B at the Monument. The personnel went on duty at 5.00 a.m. to park cars and direct visitors. 88 cars brought 328 visitors to the service. This was the second such service held and was much more successful than the first one at which only 125 were present. It will be made an annual event hereafter.

"The University of Arizona Archaeological class made their yearly visit to the Monument on the 7th. There were 48 in the class this year.

"25 members of the Sierra Club of California visited the Monument on the 16th.

"L.E.Peterson, of the Truscon Co&, of Los Angeles, was here on the 20th. to apply a test of Truscon's weatherproofing material, Penetex. It had rained the previous day and the walls were not in condition for applying the material so the test has been postponed to a later date. Laboratory tests on small samples seem to be satisfactory, but so have several other materials that afterward failed when applied to the walls themselves.

"The weather has been unushally cool for April. The maximum temperature for the month was 93; mean maximum, 81.7; the minimum, 31; mean minimum 41.85; Mean temperature 61.78. There was .59 inch of precipitation; 24 days were clear; 3 part cloudy; and 3 cloudy.

"Ranger Ed Rogers, who has been temporarily stationed here, left on the 18th for Tumacacori National Monument, from where he will

leave May 2nd or 3rd for Bandelier National Monument. We will miss Ed exceedingly."

EL MORRO NATIONAL MONUMENT.

A little past the middle of the month I had the following good report from Mr. Vogt:

"Dear Pink:

"Driving winds, day after day, and sometimes all night as well, have whipped us into a state of indecision and sadness.

"We had hoped that at least some moisture would come from such incessant punishment. We read of the snow on the White Mountains south of us, the heavy fall in the La Plattes to the north, and of that in the San Francisco Peaks near Flagstaff. All we get here is the bitter cold lashing of the dust laden wind.

"All this has a great deal to do with Park Service travel. Where usually in April we have daily visitors with heavier attendance on Sundays, especially Easter; now no one ventures out.

"The closing of the First National Bank at Gallup and now the appointmnet of a conservator of the First National Bank of Albuquerque, heretofore considered as the Gibraltar bank of the State,, has thrown a gloom over the whole State, a sort of pinch of financial hunger which discourages travel to trips of greatest need.

"Early in the month I had out one party of some thirty pupils of the Ramah School 7th and 8th grades for a day at the Monument. Notes were taken by many and themes were written afterward on what they heard and saw. Some seven of the boys, including my own, climbed the prehistoric hand and foot trail up the sheer cliff near the rincon, -- a dangerous climb which made us all uneasy.

"The copies of President Hoover's and Secretary Wilbur's letters were duly received , read, appreciated, and forwarded to Mr. Julian at Chaco Canyon.

"The book on Wild Flowers at Rocky Mountain National Park, is a treasured volume.

"A change in State Highway Engineers from Mr. Eccles to Mr. Glen Macey will help our road chances, we believe.

"Gallup has organized a Chamber of Commerce. Through this new organization, which apparantly combines all Clubs, parties, and factions, we are expecting more results in road matters. I think Custodian Julian's hot-chile talks and letters have helped greatly to make Gallup business men realize the importance of unified action on roads leading to points of world unique interest.

"Coyotes are right now at their meanest period, killing pregnant ewes to carry away unborn lambs to their dens of puppies.

"An unusual number of Badgers and Porcupines have been seen and on our big lake at Atarque are 88 white pelicans, numerous herons and hundreds of ducks and small water fowl.

"Dry land farmers are about done plowing and planting. Cattle men report many new calves and sheep men are getting ready for lambing.

"The range is drying out and unless moisture comes as a final benediction from these incessant winds, the lambing results

among the million and a half Navajo sheep, the thirty some thousand Zuni sheep, as well as in our own flocks, will not be as good as expected a month ago.

"I am employing about 30 Navajos and Zunis during May, the lambing month. A recent tour through the timbered recesses of the Navajo grazing areas near us shows considerable poverty in clothes, no acute suffering but an alarm over water conditions for their sheep and horses; lakes mostly dried out, with some frantic and pretty crude water well digging going on in some of the Canyons where water may be developed and may not.

"There has been no damage at El Morro except what the wind does to those badly eroded places near the point of the cliff.

Con Saludos,

Evon Z. Vogt.

"P.S. I have written this by hand in St. Mary's Hospital at Gallup where I am spending the day with Mrs. Vogt, who, during the night suddenly developed a badly infected finger from a slight needle cut. We left the ranch at 4:30 a.m., leaving our four children asleep and drove into Gallup, arriving here just as the sun was trying to light up the red cliffs to the east. A surgeon has opened the finger and we hope stopped a fast travelling streptococtie * infection which will keep her here for several days.

* Sheepherder spelling"

In a letter which comes to hand as I write this, E.Z. speaks indirectly of Mrs. Vogt's being at the ranch, so we will sincerely hope that, however it may be spelled, her infection is very much better.

GRAN QUIVIRA NATIONAL MONUMENT.

I have the following report from Mr. Smith:

"Dear Boss:

For the month ending April 20, 1933, we have registered 246 visitors who entered the Monument in 65 cars. The weather conditions have been fair and travel has begun to mend.

"We began repairs to the Mission walls on April 6th but shortage of funds prevented us from working but a short while as we only had $50 for this purpose and scaffolding to purchase out of this sum. The work we did greatly improved the appearance of the walls. We began on the south wall of the Mission in the refrectory, building up a little above the places for the vigas which formed the roof of that room.

"As all who have seen the Mission will remember, there are two places in the south wall near the east end of the Mission which are much lower than the average height of the wall. In the one to the west we found what appeared to be a window. On one side of the wall it was plainly discernable and would be a few feet ahead of the choir loft and above it. Directly above the partition wall between the Refrectory and the room we have roofed for a museum, there is another depression in the walls which appears to have been a window but as this portion of the wall is in a bad state it is impossible to

tell for certain whether this was caused by a window or not. The one we are sure of slopes from the outside of the wall toward the inside which would enable them to obtain more light with less space.

"If this wall could be brought up to a height sufficient to replace these windows and the vigas replaced over the refrectory, it would give the visitor an impression of the grandeur that was once to be seen here.

"Mr. Huey hasn't begun drilling here yet. He has the hole dug to drive casing but hasn't spudded in yet.

"The treasure seekers have not yet returned to their diggings as they said they would when they left."

MONTEZUMA CASTLE NATIONAL MONUMENT.

Mr. Jackson reports under date of April 26, as follows:

"Dear Pink:

"By actual count we had 1350 visitors for the month, while only about 464 names appeared on the register book, this being the second month that only about one third of the visitors to the Monument climbed up the ladders to the Castle.

"We had 32 members of the Sierra Club of Los Angeles with us during the month and they proved to be a very interesting bunch; we hope they see fit to pay us another visit. We told them of the wonders of the Casa Grande Ruins and I rather imagine that at least a part of them showed up there.

"Dr. Byron Cummings, Director of the State Museum and head of the School of Archaeology at the University of Arizona, paid a six day visit to the Verde Valley for the purpose of investigating the archaeology of this district, and made our station his base of operations. He visited a number of the large pre-historic pueblo ruins within a radius of 15 miles from the Castle, accompanied by Howard Wingfield, of Camp Verde, as guide, and my son, Earl Jackson who is studying under him. On examination of structuresm mostly from surface indications and study of pot sherds, Dr. Cummings made some very interesting and worth while conclusions. At a ruin near the mouth of Clear Creek, he believes he has found either a kiva or a sunken ceremonial chamber of like nature. This point is very significant as no kivas have yet been found south of the Mogollon rim. They seemed to have belonged to the northern cultures of the Little Colorado and the San Juan.

"On the Calkins ranch, south east of Camp Verde, Dr. Cummings found definite evidence of Pit House structure which makes a considerably earlier date of occupation of the Verde Valley than had previously been supposed; dating back to possibly the time of Christ. These structures present definite early cultural linkage with the aboriginal inhabitants of the Gila Valley to the South.

"Considerable pottery was found at various sites indicating early pueblo or Pueblo I period as well as Late Pueblo or Pueblo III sherds. Dr. Cummings believes in a probable indigenous source of one type of Black on White pottery. Excellent well fired pottery was made of native clays. There is also considerable northern trade pottery of late date and possible trade relations with Tonto Basin are evident. Needless to say that we enjoyed Dr. Cumming's visit

and that it was educational, - and I believe that you will agree that we could stand a lot of that.

"Engineer Attwell and his crew finished their work here and headed for the coast. We think Walt is a real engineer and that he carried out his instructions faithfully. On leaving he told us he would likely be back in July, so we will stand by, ready to make a Paul Revere ride in case he comes back with instructions to put a coat of green paint on the outer walls of the Castle."

Walt Attwell, by the way, has sent in a report of his work at the Castle, giving some interesting details. Here it is:

"Dear Mr. Pinkley:

The general plan for handling tourist traffic at Montezuma Castle National Monument contemplates giving the lecture at the foot of the cliff in order to reach more people and reduce the amount of traffic in the ruins. This traffic in the building was reaching such a volume that it had a detrimental value.

"By giving the lecture at the foot of the cliff, the amount of traffic in the ruins is greatly decreased. This necessitated the moving of the parking area so the cars could not reach the area adjacent to the foot of the cliff and at the same time accomplishes the Park Service principle of removing the 'modern' from the immediate vicinity of the ruins.

"The construction of this parking area was commenced on Feb. 21 and completed April 11 at a cost of $4,855, or 97% of the allotment. The cost is broken up into - Labor $3,256.27 and material, $1,598.73. The labor is further segregated as:

Camp Verde, 40 laborers, some with teams, averaging		$32.96
Cottonwood, Cornville, 56 laborers	"	19.54
Clemenceau, 2 laborers	"	18.50
Rim Rock, 1 laborer	"	28.12
Prescott, 1 tractor operator	"	190.63
Park Service personnel, foreman, masons, etc or 105 men averaging $31.01 each	"	117.57
Camp Verde crew included 2 Indians averaging		24.67

"The material was purchased locally with the exception of culvert pipe. The nearest pipe market was Phoenix, 125 miles. A summary of material purchased by towns is:

Camp Verde	$304.55
Cottonwood	632.62
Clarkdale	170.58
Phoenix	490.98

"This project has placed nearly $5,000 in circulation in the immediate vicinity of Montezuma Castle within 50 days. It should have greatly relieved the tension of the depression there.

"This parking area has been greatly needed for several years. It not only adds much in orderly parking and convenience but in neatness of appearance. It gives a 'Government owned' appearance to the place. Much favorable comment from local persons and tourists proves that the new location is being favorably accepted."

I might say, incidentally, that in a later letter from Mr. Burney, one phrase about this parking ground runs as follows: "This area shows up well and no doubt will be the syzygy of the general development plan." In a footnote, however, he disclaims the scrambled letters and says Walt Attwell did it, which, we take it, shows what kind of 3.2 they put on the market over in San Francisco. The word is in the dictionary all right but we still doubt if we ought to use it in mixed company.

NAVAJO NATIONAL MONUMENT.

I have a report from Mr. Wetherill under date of the 15th, which runs as follows:

"Dear Frank: I am writing this from Kitsil ruins where we are at work on the trail. We find the trail in bad shape after the winter storms. I think we can greatly improve it in the time we have to work. I have only two Navajos with me just now, but will have Dr. Enouch's boys with me later. I got supplies for our work from Keith Warren and told him to send the bill in to you. I also got an axe and two shovels. I had all the rest of the tools and equipment.

"I would like very much to have you come in while I am here. Mr. Jack Balmer, the Superintendent from Tuba, may be here to visit the Ruins. Mr. Balmer is our new Agent and appears to be a fine man. We can get cooperation from him that we have never had before. He is very much interested in the Navajo National Monument and in the Navajo Indians. He will do what he can to help our prospective National Park along.

"Hoping to see you here, or if you cannot come, send in one of your men, with best regards, I am

Yours truly,
John Wetherill."

PETRIFIED FOREST NATIONAL MONUMENT.

The following is the report of Superintendent Smith to you which will be of interest to all the Southwestern Monument folks and is here reproduced on that account.

"Dear Mr. Director:

Following is the narrative report for the monthly period including April 27, 1933.

"Conditions are fair in the Petrified Forest National Monument, although the travel is not what is expected according to last year's travel and considering the fact that we now have an excellent road connection with U.S. Highway 66 and of course, the fine bridge over the Puerco River. Much of this decrease is probably due to bad weather and high winds which deter people from leaving Highway 66. Also a great deal of the travel at this time of the year is east bound and we have no way of contacting this east bound travel before it gets to the Painted Desert Section of the Monument.

"The weather for the month has been variable, nice warm days for a short period, shifting to several days of wintery character and very high winds. An inch of snow was on the ground on the morning of April 19th. Highest temperature recorded was 76 on the 3rd and the lowest was 20 on the 6th. 22 clear days, 5 part cloudy and 4 cloudy.

"All work, including administrative, has been kept up to date and the road has been well maintained and is in first class condition. The monument has been periodically inspected by the Superintendent and no field representatives of the National Park Service have visited the Monument. However, Mr. Dunn, of the Field Headquarters, in San Francisco and Mrs. Dunn, with their baby, stopped in for a few hours on the 26th, on their way from Rocky Mountain National Park.

"During the month a publicity bulletin was gotten out, entitled: 'Two Hours in the Petrified Forest National Monument.' This was in the nature of a mimeographed pamphlet with several illustrations showing points of interest along the Monument highway and contains a log of the road. Two issues of these were made, one reading north and the other south. As it is evident that we shall not be able to give any specialized field attention to the tourist, it is felt that if one of these can be handed to each car entering the Monument, either east or west bound, it will enable the traveler to get a great deal more out of the trip for himself than he otherwise would. These pamphlets have been enthusiastically received by the tourists and on checking out, the occupants of the cars many times have asked the ranger if they can keep them, saying that they wanted to take them home as a souvenir of the trip, and for the other members of their family to read.

"Construction of a sewage disposal plant was completed April 10. This was constructed in accordance with approved plans furnished by Mr. H. B. Hommon of the U.S. Public Health Service. However, these plans were revised somewhat in order to more nearly come within our funds with the approval of Mr. Hommon. For one thing, the catchment tank was constructed of redwood planks instead of reinforced concrete as originally planned. Chas. E. Fisk was designated foreman of construction.

"A small band of Antelope has been seen several times a short distance south of the Checking Station on U.S. 260.

"As stated, there was a slight decrease in the travel through the Monument, but the registration at the Painted Desert Section was highly satisfactory. A tabulation of the travel follows:

"For the month, Petrified Forest Section, cars,	1620	People 4610
Previously reported- - - - - - - - - - - - - - -	5484	15681
Total to date - - - - - - - - - - - - - - - - -	7104	20261
"For the month, Painted Desert Section cars,	3112	" 9294
Previously reported - - - - - - - - - - -	5930	19679
Total to date - - - - - - - - - - - - - - - - -	9042	28973
"Grand Total for April- - - - - - - - - - - - -	4732	13904
Grand Total to date - - - - - - - - - - - - -	16146	49234
Last year, same date - - - - - - - - - - - - -		5868

"The State organization of the Lions Club held a convention in Winslow, Arizona, commencing on the 21st, and about 45 came to the Petrified Forest on that date. After lunch they listened to a lecture by the Superintendent and were conducted through the Monument.

"Dr. and Mrs. C. L. Fenton were in the Monument on the 22nd and 23rd. Carrol Lane Fenton, Ph.D., of West Liberty, Iowa, is associate editor of the ~~West~~ American Midland Naturalist, published by the University of Notre Dame. Dr. Fenton has been lecturing at the University of California at Berkeley. He was very much interested in the Petrified Forest National Monument and said that, instead of two days here, he would rather have had two weeks. He also stated that he was going to come again as soon as possible. Among other visitors were Dr. C. H. Mayo, surgeon, of Rochester, Minn.; Mr. and Mrs. Ralph Bellamy, movie stars; Mr. George I. Collins, Grand Canyon, and Miss Gertrude Harvey, of Washington, D. C.

"I wish to report the death, in a shocking airplane accident, of a very good friend of the National Park Service, Mr. Carmel Giragi, co-publisher of the Winslow Mail, which was, up until a few months ago, the Winslow Daily Mail. Mr. Giragi started for Phoenix on the morning of the 17th, and apparantly crashed within a short time of leaving Winslow. A State wide search was instituted but the plane was not found until Sunday, the 23rd. The plane apparantly chashed burst into flames, and the bodies of Mr. Giragi and his pilot were largely consumed. Mr. Giragi was a very public spirited man and during our sojourn here at the Petrified Forest for nearly four years he had cooperatied with the National Park Service to the fullest extent.

Respectfully submitted,
Charles J. Smith,
Superintendent."

PIPE SPRINGS NATIONAL MONUMENT.

The following report is from Mr. Heaton under date of April 24:

"I will begin my report for the month of April with the account of turning the water over to the Indian Service.

"On April 4 Mr. Haniron, with eight Indians, came down and commenced the digging of a trench for the pipe line and the next day they got it in and told me they were ready for the water. I let the ponds fill up but no water would go through the pipe and they had to dig up about half of it to find the trouble. They found that they did not get the overflow pipe set over the hole in the main pipe line and that delayed them in getting the water. It was not till the 19th that the first water ran through the pipe and now there are several leaks that they don't seem to be able to stop. The water is beginning to seep through the reservoir banks and get the road muddy.

"Albert Frank and Ray Mose, two young Indians with their wives, have moved here and are making their home just south of the Monument. They are going to do some farming with the water that comes from the Pipe Spring.

"On March 26 the fly-catcher family returned from their winter home in the southern part of the State, and have been busy every day getting their old home in shape to raise their family this year. This is the seventh year that the flycatchers have used the old Fort for their nest and the rearing of their young.

"We have several families of English Sparrows nesting in the Fort and outer buildings this spring. Also we have a family of Bumble Bees in a rafter of the upper house.

"There has been all kinds of weather this month. The first part was warm and brought up the weeds; then it took a change for the colder and on the 1 9th we had two inches of snow and the next night nearly a quarter of an inch of ice. It has only been the last three days that have seemed like spring. It is reported that most of the fruit has been frozen or winter killed. The trees here at Pipe Spring are sure slow in leafing out. The poplars are just getting green; the Elm, Silver leaf Cottonwood, Plum and others lock as if they would be teo or three weeks yet before they were leafed out.

"Our travel this month amounts to about 160 coming from the nearby states and from Illinois, Kansas, Texas and Nebraska. In talking with a gentleman from Kansas about the settlement of the West and the Mormon people with their leader, Brigham Young, he said just before he got into his car: "Do you know that if we had a Brigham Young at the head of this Nation today, this depression would be history!" I answered him by saying: "Maybe we have, who can tell?"

"In reading the reports of the other Monuments and the sketches regarding construction and history, all of which I enjoy very much and I get to wishing that I could get away to see them for I know that they are interesting. But did you ever stop to think that Pipe Spring National Monument is the only Monument created in honor of the sturdy men and women who conqored our great Western America. All the rest of the Monumentsdeal with things beginning back hundreds of years ago, all of which have been preserved for us to study and enjoy; to let our minds wander back and try to picture just what took place and what caused these places to be to be which have been set aside as National Monuments. So I think it is no more than right that we have one or more Monuments created to the memory of the pioneers who gave their all that we might enjoy things they did not dream of."

TUMACACORI NATIONAL MONUMENT.

I have the following letter from Mr. Boundey, dated April 28:

"We had 1294 visitors for April.

"The month has been unusbally cold and there has been lots of wind.

"Since last month's report, Engineer Goodwin has finished the parking place and it is a big addition to the Monument, creating a great deal of favorable comment.

"I spent ten days the latter part of the month on a trip to the coast. I did not get warm from the time I left until I returned and I traveled for half a day in the vicinity of Riverside in two inches of snow. California is a wonderful State -- viewed from Arizona.

"The deck on the tower supporting our water tank collapsed, causing considerable repair to the tank, but is now back in good repair again.

"I am very sorry to have missed Bob Rose and Dr. Russell on their visit to Tumacacori.

"Ranger Rogers and wife, who looked after the Monument during my absence leave tomorrow for Bandelier."

WUPATKI NATIONAL MONUMENT.

Quite frankly, we are lifting bodily an article on Wupatki, the Tall House, from the current number of Museum Notes of the Museum of Northern Arizona. The article itself is so well worth while that we want to put it in our files in this manner for permanent reference, and the work that the Museum of Northern Arizona will do there this summer under its permit, will bring the monument intoprominence among those under our charge in the Southwest.

"Wupatki is unique. For almost a hundred yards along a red sandstone outcrop extend the partially collapsed walls of dwellings. Behind rises a tall, black mesa with stunted junipers peeping over the rim. Before spreads the painted desert in soft reds and greens. Few sites in the Southwest have such a glorious setting. Wupatki is unique because, for a ruin in the open, exposed to the weather for over seven hundred years, it is remarkable well preserved. In its rooms and trash piles perishable material such as wooden beams, bits of textiles and wooden objects are nearly as well preserved as if they had been buried in a dry cave.

"Wupatki lies thirty-five miles northeast of Flagstaff in the red rock country called the Wupatki basin. It is a region of low mesas and shallow canyons carved out of red sandstones and shales of the Moencopi formation, and half buried in black volcanic sands. Several miles east the muddy Little Colorado River ripples over the surface of a lava flow which forms the Black Falls. To the west lies an escarpment formed of an outlying lava flow of the great San Francisco Mountain volcanic field. About 5100 feet above sea level, this region is treeless and almost bare of vegetation. Dunes of black volcanic sand support clumps of grayish-green Chimiso bushes. This sand was ejected some twelve hundred years ago from a volcano called Sunset Crater which lies about thirteen miles to the southwest. It was in this region of little rainfall that the ancient Wupatkians lived.

"Wupatki is unusually well preserved for a site in the open. Some walls are standing three stories high; they were once much higher. Archaeologists estimate that the building once contained from seventy-five to one hundred rooms. Only a small number of these are now visible above the surface. The fallen walls of red sandstone and other debris form a mound of considerable depth hiding the room outlines. Hidden under the fallen walls some of the history of northern Arizona awaits the trowel and whisk of the trained archaeologist. The spade and pick of the pot hunter and relic seeker have destroyed much of the evidence out of which the early history of our State is being compiled. The evidence, once destroyed, can never be regained. It behoves those who are interested in our ancient history to finance the trained archaeologist and discourage the destructive pot hunter.

"A hundred yards north of Wupatki, on the valley floor, lies a large reservoir with masonry walls. Four other bowls, not so well preserved, are known in the region about Flagstaff. It is assumed that this is a rainfall catch basin, but it may have been a well such as the Hopis now build. The spade of the archaeologist will settle this point. West of the ruins, surrounded by tall weeds, lies the old Wupatki spring, which probably furnished the main water supply for the pueblo.

"White men first saw Wupatki in 1851, when Lieutenant Sitgreaves , of the U.S. expedition to explore the Little Colorado Valley passed this way. A good picture of Wupatki appears in his report. Fortunately Wupatki lies in a region remote from travel. Great dunes of black volcanic sand make its approach difficult even with horse drawn vehicles, so until a few years ago the ruins was little visited. Then the U.S. Forest Service built a passable road to the ruins, which has made it accessible to motor travel.

"In the 1880's C.M.Schulz, a pioneer sheep man, is said to have cleared out a room or two in the ruin to provide shelter for his herders. It is said also, that he built, as a shelter for his sheep, the wall that joins the two ruins.

"Wupatki early felt the spade of the pot hunter. In the early 1890's the late Ben Doney, the vetran prospector, made a notable collection from the ruin. It is reported also that one of the large curio dealers employed some Mexicans one winter to collect material. In 1900, guided by Ben Doney, Dr. Fewkes visited the ruins, and described them briefly in three publications. The subject matter in all three are the same. In 1924, through the efforts of Mr. J. C. Clarke of Flagstaff, and the author, President Coolidge set aside the ruins as the Wupatki National Monument which is administered under the National Park Service of the United States Department of the Interior. For many years Mr. J. C. Clarke was Custodian of the National Monument. It was a dollar a year job but one in which he took a great interest up to the time of his death in 1939. Mr. Clarke placed the articles which he found in the ruins in the Museum of Northern Arizona at Flagstaff, of which he was a life member and trustee. There they can now be seen.

"In 1933 the Museum of Northern Arizona received a permit from the Secretary of the Interior to excavate and restore parts of the ruins. The work has been begun. Archaeology nowdays is a highly technical science. It does not consist, as many believem of digging for relics and putting them in a museum. It is a study of history. Everything must be studied, remains of bones, pottery fragments, and even bits of wood and charcoal. The latter must be painstakingly preserved so that the tree rings can be studied. By the tree ring methods Dr. A. E. Douglass and his students have made the prehistory of the Southwest into history. We know that Wupatki was occupied in the eleven and twelve hundreds, A.D.

"In the Hopi legends of the Hopi Snake Clan at Walpi, a site called Wukoki, or the Big House, plays a prominent part. It was the stoppin place of the clan on their long trek from Tokonabá, near Navajo Mountain, to the Hopi mesas. Dr. Fewkes considered Wupatki to be the Wukoki of the legends. Be that as it may, the Hopis have long called the ruin Wupakikuh which means Tall House Ruins. This has been corrupted into Wupatki and gives the name to the National Monument. Thus far the Museum of Northern Arizona has been unable to find a Hopi legend connected with this site, although a Hopi informant reported that it was the traditional stopping place of the Parrot Clan of the Zuni Indians on their way from the Grand Canyon to the Zuni Valley in New Mexico.

"Dr. Fewkes, after his visit in 1900, states that he saw in Ben

Doney's house a large collection of objects that the prospector had recovered from Wupatki. Dr. Fewkes records: (22nd. An. Rept., B.A.E.)

'One of the most instructive objects is the dessicated body of an infant wrapped in coarse cotton cloth . . . . This bundle was encased in three small cotton kilts which were later washed and found to be as good as new. At the foot of the infant was a dessicated parrot (?), some of the brilliant plummage of which is still to be seen. This bird has a prayer-stick tied to one leg, which would make reasonable the belief that it was a ceremonial object. Another interesting specimen in the Doney collection is the dried body of a dog which was found in one of the deep clefts of the rock near one of the ruins. This dog has a head similar to that found by the writer in the Chaves Pass ruin in 1896. There are also several fragments of beautiful cotton cloth and netting. Some of the specimens are embroidered others are painted with circles and other geometric designs. A heavy wooden club, several planting sticks, and other wooden objects, are to be seen in Mr. Doney's collection. There are also many cigarette canes, some with woven handles, as well as seeds of cotton, squash, gourd and corn, and many objects of shell, as tinklers, ornaments, rings and bracelets. One of the best Haliotis shells which I have ever seen from a ruin was found in one of the graves.

'There are also many large turquoise ornaments, some an inch or an inch and a half square. The many metates are made of lava, and are deeply worn as if from long use. The copper bell from a grave is a remarkable specimen. It has the same form as the bells from Arizona ruins which I have elsewhaere described, but on one side are ridges indicating eyes, nose and mouth, apparantly made of strips of metal soldered or brazed to the surface. It is not believed that this bell was the product of the former occupants of these now-ruined structures; more probably it was obtained by them through barter.'

"The people of Wupatki were skilled in arts and crafts. In the Clarke collection in the Museum of Northern Arizona can be seen many objects taken from Wupatki. Yucca needles, a wooden cradle board, a wooden dipper, pottery, textiles and ornaments.

"You may ask, who were these Wupatkians? They were American Indians. Their heads were round and flattened behind because as babies they were strapped to a hard cradle board. They belong to a culture level which archaeologists have called Pueblo III. This means that the men were farmers, who grew corn, cotton, beans, squash; that they spun cotton to make excellent textiles; that the women made fine pottery; that they built communal masonry dwellings, associated with which was a kiva or ceremonial room. This was also used by the men as a club room or a lodge.

"The blood of the ancient Wupatkians probably flows in the veins of modern Hopis who inherited their culture. The ancestors of the Wupatkians dwelt in pit-earthlodges in the San Francisco Mountains. The site was probably abandoned because of various reasons -- one of which may have been due to the growing dessication of the country."

Harold S. Colton.

The following Bibliography is appended to Dr. Colton's report and should be made a part of the record here:

Colton, Harold S.

A survey of the ruins in the region of Flagstaff, Ariz. B.A.E. Bull. 104.

Fewkes, J.W.

1900. Pueblo Ruins near Flagstaff, Arizona. Am. Anthro. N.S. Vol. II.

1904. Two summers work in Pueblo Ruins. Pt.I An. Rept. B.A.E. 1900-1901

1904. Cluster of Arizona Ruins which Should Be Preserved. Records of the Past, Vol.III, Part I, Jan. 1904.

1926. Archaeological Studies in the Wupatki National Monument. Explorations and Field Work of the Smithsonian Institution, 1925

Sitgreaves, L.

1853. Repaort on an Expedition Down the Zuni and Colorado Rivers. Sen. Ex. Doc. 59, 33 Cong. 1st. Sess.

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This completes the report for the month of April on the conditions among the Southwestern Monuments.

IN GENERAL I believe the traffic is moving a little freer on the main lines and we may look for a general increase in the travel during the summer months at the easily accessible monuments; but I very much doubt if the people who will be on the road will have enough extra funds to make many side trips, so those Monuments which are off the through roads are not likely to show an increase over last year.

The weather, as shown by these reports, is from two to three weeks late pretty well all over the district.

Cordially,

Frank Pinkley

Superintendent.

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UN TED STATES

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

STATUS OF PERSONNEL

nwestern Monuments

National Park for the Month of APR - - 1933

	This Month		This Month Last Year	
	Appointed	Non-Appointed	Appointed	Non-Appointed
., em loyees beginning of month	23	6	22	0
of additions	2	89	0	20
	25	95	22	20
of separations	2	94	0	20
of employees close of month	23	1	22	0
of promotions during month	0	0	0	0
te amount of annual leave taken	0	0	0	0
te amount of sick leave taken	30	0	0	0
te amount of leave without pay	0	0	0	0

UNITED STATES

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

STATUS OF PERSONNEL

Headquarters Summary

National Park for the Month of APRIL - 1933

	This Month		This Month Last Year	
	Authorized	Non-Appointed	Appointed	Non-Appointed
[illegible] on leave beginning of month	22	6	22	4
[illegible] of additions	2	22	0	22
[illegible]	22	22	22	22
[illegible] of separations	2	24	0	22
[illegible] of employees claim [illegible]	22	2	22	0
[illegible] of promotions during month	0	0	0	0
[illegible] amount of annual leave taken	0	0	0	0
[illegible] amount of sick leave taken	22	0	0	0
[illegible] amount of leave without pay	0	0	0	0

MONTEZUMA CASTLE NATIONAL MONUMENT
NATIONAL PARK SERVICE
DEPARTMENT OF THE INTERIOR

MONTEZUMA CASTLE, situated in a cliff recess about 80 feet above the ks of Beaver Creek, is the best preserved cliff dwelling in the Southwest. location in the face of an almost vertical cliff face makes it conform ally to the popular conception of a dwelling of this kind. A great over-ging ledge of limestone provides shelter which has kept the Castle and its heological materials in a fine state of preservation.

Centuries ago, some chieftan and his band must have rounded the bend in ver Creek, sighted this gloomy cliff recess, and here halted to build es in a place easily defended against the raids of fierce, nomadic enemies. btless the limited patches of land along the meandering stream below were ught under cultivation with the use of wood and stone implements.

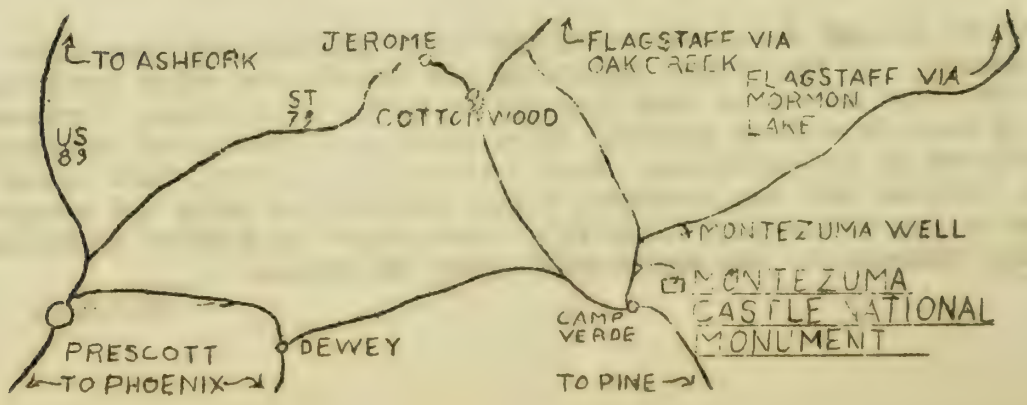
Excavations have resulted in finding shell, turquoise and bone objects luding bracelets, pendants, awls, scrapers, daggers and other artifacts. ton cloth, seeds, sandals of hide and yucca fibre, stone implements and tery, and even skulls and dessicated bodies have been found in the dry t and sand floors of the dwelling. Large timbers, most of them sycamore, e cut with stone axes, lugged up the steep cliff face and used as beams the structure. The ceilings, some of them almost intact beams and walls smoke blackened while in the various rooms are found places where fires e built. Certain small holes in the outside walls, particularly in the anda of the upper part of the structure, seem to have been designed as tholes since they are so located as to have made possible the training of ows upon strategic points below and on the ledge above where enemies ht have tried to reach during times of attack.

Based upon meagre correlations and comparisons between cultural erials found in Montezuma Castle and those found in other ruins the s of which are known, the period of construction of the Castle is placed 600 to 800 years ago and its abandonment from 450 to 550 years ago. At st three stages of construction are shown indicating that the dwelling not all built at one time. Different methods of construction are even ed in the various rooms as is shown in plastering, ceiling construction, wall and door types. The building was doubtless a communal dwelling h each family or clan unit erecting its own rooms according to its own as on structural details.

Upon the advent of the white man the cliff dwelling had long since n abandoned. No traditions concerning its inhabitants exist among the ches who lived nearby as they also did in prehistoric times. Frequent acks by outside enemies probably drove these resourceful and industrious ff dwellers to the northward. Similarities in artifacts, more especially tery, indicate that the Montezuma Castle inhabitants built and occupied llings in the vicinity of Flagstaff, later migrating farther north where ay their descendents are represented among the Hopis.

(R.H.R.).

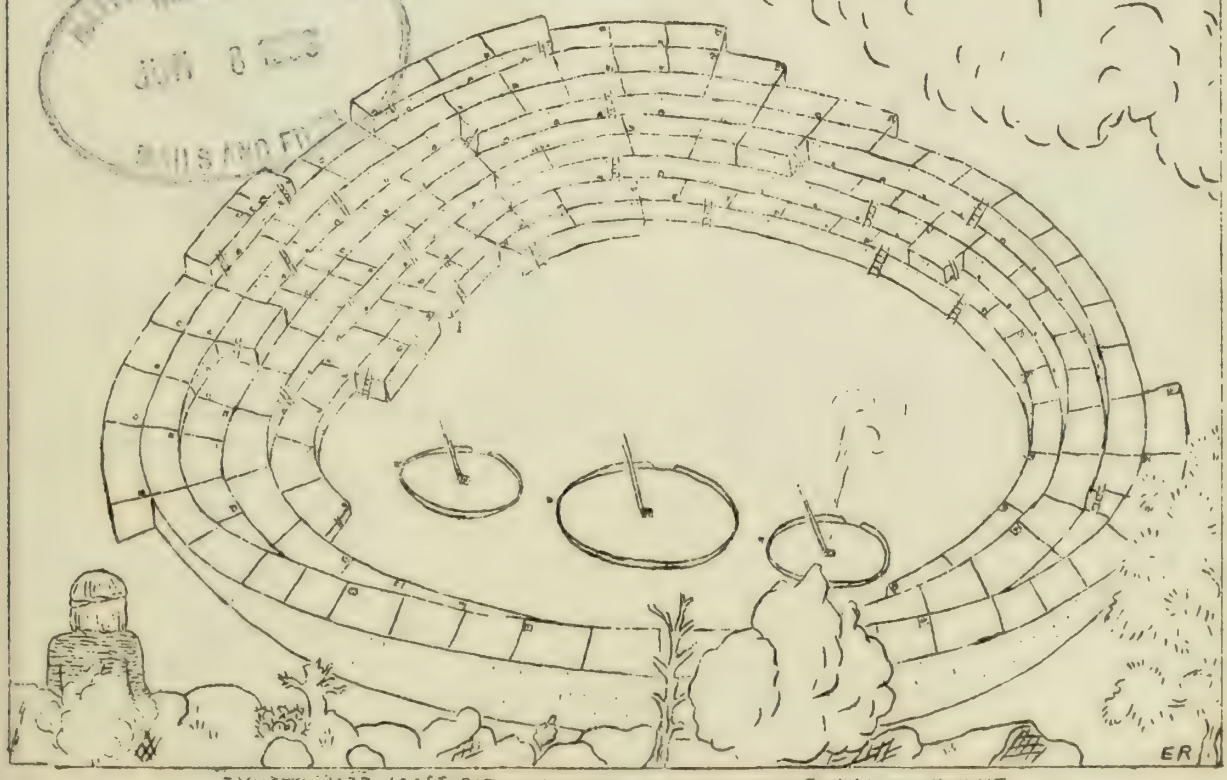
MONTEZUMA CASTLE NATIONAL MONUMENT.



SOUTHWESTERN MONUMENTS

MONTHLY REPORT

MAY — 1933



TYUONYI 1433 (RESTORATION SKETCH) -- BANDELIER NATIONAL MONUMENT

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UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
SOUTHWESTERN MONUMENTS
COOLIDGE, ARIZONA

June 1. 1933.

The Director,
National Park Service,
Washington, D. C.

Dear Mr. Director:

We come again to that critical time when the pay checks are issued and when we must justify our receipt of them by telling how much or how little we did last month. It seems that we are not going to run out of visitors this year and business is even picking up a little at some of our places over last year. We are really looking for pretty good business at most of our southwestern monuments this summer if the weather is near normal.

BANDELIER NATIONAL MONUMENT.

Ranger Edgar Rogers, accompanied with the H.CW.P., left Tumacacori National Monument early in the month to take charge at Bandelier. He wrote as follows:

"Arrived at the Canyon Saturday the 6th. Had a rather windy trip. Arrived about noon Saturday, but the wind was blowing so hard Mr. Frey was afraid to operate the cable. We waited until about sundown when the wind quieted down some and we got to the ranger station just about dark.

"Found water standing in two places in the house. The cause was two open places in the roof, each about ten feet long. Evidently the contraction of the cold was too much for the old roofing paper. I tried to patch it today.

"Somebody had come in through the bath room window, or what may be the bath room some time, and camped here past fall; we noticed the evidence on the stove. They evidently needed a dishpan and a wash basin in their business too.

"But to begin at the beginning, we left Tumacacori at 10.30 Tuesday the 2nd.The day driving from Lordsburg to Carlsbad was about the windiest in my experience, mostly sand, and a snow flurry for variety. We thoroly enjoyed the trip through the Cavern.

"I had two brake rods replaced on the car, the curtains fitted and repaired and some work done on the steering gear. It improved the steering a little but I will have to replace some of the parts to get at the seat of the trouble. The motor runs fine. The speedometer shows the trip as 925 miles.

"Everything looks natural up here though spring is a little late. A few walls have fallen down, a few rungs are broken in the ladders, a few new names are on the walls. Will write more later."

On the 26th Ed sent in his official report as follows:

"Have had 206 visitors from the 7th to the 25th inclusive. The weather hasn't been very encouraging either; spring is late over here and the weather has been cold and very windy. We had snow flurries on the 13 and 14. The snowfall was very light last winter and the lack of moisture is very evident. This is shown in the Canyon by the lack of the usual grass and flowers.

"We arrived at Bandelier about noon of May 6th expecting to get into the Canyon and get settled by night. However the wind was blowing so hard that Mr. Frey was afraid to operate the cable by which our belongings are brought into the Canyon. We had to wait until sundown for the wind to die down. Instead of getting settled by night we moved in after dark.

"The next few days I patched the roof of the Ranger Station, replaced broken rungs in the ladders to the Ceremonial Cave, erased a few new names on the walls, and sadly surveyed the effects of winter weather and stock grazing on ruins; between times meeting the visitors.

"Engineer Attwell was on the Monument about two weeks making a survey of existing trails and staking out the road location. At the same time he seemed to get in a thorough and interested study of the Monument from an engineer's standpoint. On the 16th I went over the detached portion of the Monument with him, visiting Tsankawi and Otowi ruins. The Mexican wood-cutters are steadily denuding this portion of the Monument of timber.

"The Boss with Custodian and Mrs. Julian visited us on May 13. On the same day Mr. Dave Madsen was in with Mr. Elliot Barker, State Game Warden, of New Mexico, and we were offered several pair of beaver by the Warden to re-stock the upper reaches of the Rito.

"Assistant Superintendent, Bob Rose and Field Naturalist Carl Russell arrived on the 21. We were sorry they did not have more time here.

"The fishing season opened May 20, but we haven't seen many fishermen around as yet.

"Within the next ten days I expect considerable increase in travel."

CAPULIN MOUNTAIN NATIONAL MONUMENT. Following is the report of Mr. Farr:

"I have the following report to make as to the activities of Capulin Mountain National Monument for the month of May:

"On May the 24th the Custodian conscripted some men and a four horse team and gave the road a fair dressing for the early spring travel. The road on the monument is now in fair condition for light travel. Of course there are about eleven to twelve thousand yards of loose cinders to be moved from the inside of the road this summer, which will have to be moved across the road and over the bank, but, with the dressing we gave it, it will be fairly passable for a month or so.

"We are glad to report the visit of the entire High School from Springfield, Colorado on May 10. They were accompanied by their Superintendent, Mr. Basil R. Covey. On May 11, Mr. J. Harlan Johnson, Principal of the Geology class from the Colorado School of mines, at Golden, reported to me a delightful and interesting study of the Volcano.

"Now that schools are in vacation period practically everywhere, we expect at least a couple of dozen to make us a visit withing the next month.

"The Custodian has a number of requests this spring from various schools, scattered from Florida to California, asking for descriptive matter describing Capulin Mountain National Monument.

"The only thing I have to send them is 'Glimpses of our National Monuments', which, while it is very good, does not deal very extensively with our monument here.

"I have been requested many times this spring to accompany a party or a school group to the Volcano, but my salary simply does not permit a lot of time for that purpose; however I am showing and describing all I possibly can and I certainly enjoy it.

"This spring I have many, many more people deeply impressed and interested in this National Monument, asking many more questions and digging deeper into the mysteries of the Volcano than ever before, and if inquiries and letters keep coming in I am afraid I am going to have to brush up a little on my geology and volcanology or many of the school students will be telling me.

"With kindest regards to the force in full,

Homer J. Farr."

CHACO CANYON NATIONAL MONUMENT. Mr. Julian reports as follows:

"Dear Boss:

"For the month ending May 25, 1933, there has been 426 visitors at the Chaco Canyon National Monument. They came from eleven states, or at least those that registered did, the District of Columbia, and Germany.

"Much of this month has been spent trying to get enough of the land situation settled that the construction work could be resumed. The results, or lack of results, is only too well known to you and makes it unnecessary to discuss the matter at this time.

"We have had several distinguished visitors. April 27 we had a party from the Department of Commerce and also a party headed by Dr. Colton of Flagstaff. On April 29, the Aztec High School was here for the day. May 4, Mr. Jackling, President of the Utah Copper Co., the Chino Copper Co., and of the Gallup Mining Co, to say nothing of various other mining and industrial organizations, was here with a party of his executives.

"We had Dr. Russell and Assistant Superintendent Rose with us the 18th, 19th and 20th. It is gratifying to have these heads of departments, and near heads of departments, stay with us long enough that they may grasp some of our problems.

"The latest plans are for the graduate school of archaeology to open June 1 and to extend well into August or possibly to the first of September.

"Dr. Keur will begin his investigation of 'Threatening Rock' about the 15th of June and Mrs. Keur, of the Department of Anthropology of Hunter College, will be my first assistant in the matter of the investigation of the 'cliff cysts! It is her intention to make this work the basis for her thesis for her doctors degree.

"With the number of visitors steadily mounting, I doubt that I will have the time for anything except handling of visitors this summer. However I hope to be able to sneak off occasionally so that I may watch some of the research operations."

EL MORRO NATIONAL MONUMENT. I have the following from Mr. Vogt:

"Dear Pink:

Sorry to have missed Mr. Rose and Mr. Russell, who were here at

El Morro on schedule. My son, who went to the Monument with them speaks much of the trip and the interest they showed in the monument and its treasures as well as a most kindly interest in my boy and his education.

"The month of May was not what we expected and everyone is having a hard time making a lambing. For three weeks all we had was devilish cold winds and freezes and rain and sleet, starting the grass and then freezing it down so that all live stock was thrown back in their condition in an unprecedented way.

"The rise in the price of wool adds some joy, however, not only to us American sheep raisers but to the entire Indian group of sheep raisers in this part of the State who have been almost wiped out by six cent wool.

"Superintendent Trotter, of the Zuni Indian Reservation, has been empowered to employ some four hundred men in four camps to work on erosion control, road work, etc. He will employ Indians mostly but will also employ some white men who are pretty badly in need of work. We are hoping that his road program will greatly improve the conditions in this region. He certainly can be depended on to make the most of whatever he gets a chance to do.

"We are looking forward to the arrival of Mr. Peterson who is to handle the monume nt again this summer.

. "My son visits the Rock often with parties and has been around so often with me that he gets the story pretty well; at least that is what visitors tell us."

GRAN QUIVIRA NATIONAL MONUMENT. I have the following letter from Mr. Smith, dated May 20. :

"Dear Boss:

For the month ending May 20, 1933, we have registered 287 visitors entering the Monument in 57 cars. This has been a poor month$ for number of visitors but they have been an interesting group. On the afternoon of May 20, Dr. Edgar L. Hewett and a group of his students, about 40 in number, were out to visit the Gran Quivira National Monument. Dr. Hewett gave a very interesting and vivid sketch of the history of the monument and the Piro tribe in his talk, which I am sure was enjoyed by his students as well as by myself.

"We began work again on the Mission walls on May 15th. They are working on the north wall of the refrectory which is the south wall of the Mission. They are bringing the walls up to a sufficient height to renew the old sockets for the vigas that once supported the roof of the refrectory. This work gives a good effect. Our tourists can obtain a better idea of how the mission appeared when it was intact. We also hope to be able to restore the walls of the sacristy to some extent and also to get to repair the main entrance of the church with the funds now available.

"Mr. K. A. Huey began drilling the new well on May 16, but as the ground was not very firm and gravel laid between the rocks he struck, he hasn't made much headway. He has concluded it will be necessary to case the hole to ever get anything done in this formation.

"Weather conditions have been fair for the past month with the exception of high winds. With the warm, sunny days here again we are expecting a sharp increase in travel."

I have a copy of the report of Walt Attwell, who went over from Bandelier to look into that well at my request. He made the following report to the Engineering Division:

"The well is located 60 ft. east of the old Custodian's residence, which is probably as ideal as any location on the Monument. The well is down 85 ft, and the log is as follows: 3' dirt; 12' gypsum; 45' lime and boulders; 53' black lime; 60' white lime; 72' gypsum; 85' broken sandstone - the bottom of the present hole. The contractor expects to strike black lime at 90 ft. The well caved at 45' at the bottom of the boulders.

"The contractor bought 112 feet of 8¼ inch casing. Of this amount, one piece, 20feet long was flat and not usable, leaving 92 feet of good casing. He expects to recieve $1.10 per foot for the used casing.

"When the contractor could not stop the caving and had to re-drill several boulders, he attempted to sink the 8¼ inch casing and succeeded to a depth of 45 feet when the casing fouled on a boulder. The contractor then attempted to drive the casing with the bit but could not. He then drilled the corner from the boulder and started to bale out when the boulder moved and fouled his baler at 45 feet. Being unable to pull the baler on account of a boulder being on top of it and against the bottom of the casing, and not being able to drill the boulder on account of losing his tools in the hole, he attempted to pull the casing. He was unsuccessful and broke his lines. He left Saturday at 5 a.m. for blocks, underreamer, new cable etc. and returned at noon Saturday.

"Mr. Huey's (the contractor) drill hole is 10 inches and the 8¼ casing is 9 3/4 O.D., which leaves only 1/8 inch clearance. This small clearance will not allow very much displacement on a boulder to foul the casing.

"I believe the 92 feet of good casing on hand now will be sufficient of that size to case off the well above the black limestone, because it will permit us to reach a depth of 92 feet plus 12 feet well at surface, or 104 feet. That will be 14 feet below where the limestone is expected. I base this on the conditions of a dozen nearby deep wells. A well ½ mile north of ours is 448 feet deep with only 80 feet of casing required. This well at present is being pumped 24 hours daily. Four miles south is a well 840 feet deep with 110 feet of casing. Six miles east is a 710 foot well with no casing. Also four miles west is a 418 foot well with no casing. These four wells are the closest in each direction and would throw weight toward the theory of not needing much casing.

"The contractor was in limestone at 85 feet and needs no casing there. Considering these facts, I feel that there is no need of more casing at present.

"Mr. Huey has the reputation of being a good well driller, having over a hundred wells to his credit. His equipment is old and feeble; nevertheless I feel that he is well qualified to handle this well. He predicted no trouble in pulling the casing and bailer and probably is well on his way now.

"If Mr. Huey can replace his casing to 53 or 60 feet in the white lime, which is only two days work and should be accomplished by Monday night, I believe he can continue to drill to water without further difficulty. No one there predicted how deep he would have to go, but I would estimate

over 600 feet. (A dangerous guess to make when it wasnt asked for)

I would suggest that Custddian Smith be requested to send you the Contractor's log each week so you could predict in advance any dangerous ground and possible future needs of casing. Also there is a possibility that Superintendent Smith of Petrified Forest of Superintendent Finnan of Mesa Verde might have a surplus of casing that could be used at Gran Quivera if future development demanded it.

I hope that this letter and my wire of today furnishes you with the required information.

I am at Sante Fe awaiting Further orders.

Sincerely
(signed) Walter G. Attwell
Associate Engineer.

Zeke Johnson is still snowed in up in Salt Lake City but reports from there as follows; under date of May 13th;

Dear Frank:

Winter is still here and as soon as it comes spring I will beat it for the Bridges and stretch my old tent and look over all my trails and see that they are passable and be prepared to take care of all that come to see me. I think I can be there by June 1st or possibly before but there has been lots of snowfall on Elk Ridge lately, I will beat it as soon as I know I can get over.

I am glad to learn that some of the Parks are going to get some money and I am still in hopes that the way will be opened to help me out a little as all the trips I usually have early in the spring have failed. Dr. Rock, the one I take out first is in the hospital. But I will soon be on the job for I am tired of the city life with nothing to do so I'll go down where I can find plenty to keep me busy.

I'll have to fix up the road where it comes down to my camp and many other places.

Well Frank come and see me if you get time and tell everyone hello and to visit the Monument. All are well at home and hope you and yours are the smae.

Mr. Heaton of Pipe Springs National Monument sends in an interesting report on May 24th, as follows:

Dear Mr. Pinkley:

It seems that our report day comes more ofter than once amonth when one is busy all the time keeping the Monument respectable, building, and showing the visitors through the Fort.

There has not been as many visitors this month as last, but I think that what have been here have been more interested in the place as I have spent from 30 minutes to 2 hours with different parties going over the place, telling them the history and other facts.

I would place the visitors for the month of May at 145.

Since my last report I have put up a few shelves in the east lower room on which I have placed the following articles:

1 Indian water jug; 1 Indian baby basket; 1 Indian work basket; 1 basket partly made, with the material that is used in making the baskets. All of these articles are made by Indians living here near the Monument.

2 Indian skulls found near the Fort; three battle axes and 3 battle hammers; 3 metates or mill stones with grinders. These are all ancient Indian relics found near the Fort.

"one old wooden churn; one old potato grater; one cast iron kettle; one broad axe; one old gun strap and knapsack; one old wood plane; one grass knife with a question on this as to its use; part of an old insulater and some of the telegraph wire of 1873. There is also a spinning wheel, a high backed chair, table, lounge, and a small door, the only part of the big gates that were used in 1870. These are all relics of the pioneer days of about 1870. I have several things that are not placed yet but hope to have them out in the near future.

"Our weather for this month has been something very unusual as on the 11th there was one inch of snow here and four or five inches in the mountains For two days following we had rain, hail and snow with a west wind. Then there were a few warm days that seemed like summer. On the morning of the 22nd again we had a slight fall of snow and the mountains remained white the most of the day. We are now enjoying good summer weather.

"I am sorry to report that we have had war up here among the feathered population of the Monument. It was between the Flycatchers and the English Sparrows. It seems that after the Flycatchers had hatched out four little ones the Sparrows wanted the nest for their own and in the course of the fight the little flycatchers were all killed. However the old Flycatchers would not give up their old home that they had used for seven years and so the fight went on for several days. When I saw that the Sparrows were tearing the nest to pieces and not intending to use it, I took a hand and succeeded in driving them away and today the Flycatchers have three snow white eggs in the nest.

"I have also been checking up on the birds that visit this monument and to date have identified thirty kinds and there are several more that I do not know.

"The most interesting topic of the day in this section is the fight between the Cattle men and the Indian Department as to the rights of the Cattle men to one third of the waters of Pipe Spring. The Indian Department has closed the cattle away from the water and claim that the Cattle men have no right whatever to any water. The Cattle men are going to turn their cattle in so that action will be brought so that they can prove that they have a legal right to one third of all waters here at Pipe Spring National Monument.

MONTEZUMA CASTLE NATIONAL MONUMENT. I have the following report from Mr. Jackson under date of May 26.

"Dear Pink:

Another month has rolled around and it is time for another report, and there is not a great deal of interest to report.

"We have had 823 visitors for the month with 385 names on the register book which you will see is a bigger percentage of the total visitors registering than has been for the past two months.

Park Naturalist Russell and Assistant Superintendent Rose spent a couple of days with us during the month studying our museum problems.

We have built several new picnic tables during the month and also some Park benches that will add a lot to the convenience of the visitor.

Am forced to take issue with that part of Engineer Attwell's April report which reads ' This parking area has been greatly needed for several years; it not only adds much in orderly parking and convenience but

eatness of appearance. It gives a Government owned appearance to the e. Much favorable comment from local persons and tourists proves that new location is being favorably accepted'.

As to the new parking area being needed, as you know I have ys contended that it would be a mistake to close the road to the old ing area until such time as a decent parking ground could be developed where, where shade and water as well as toilet facilities could be had. for the camper we have nothing to offer but a white hot flat that event lizards and rattlesnakes leave during the summer months.

As to convenience, I believe that Mr. Curry, the full time er, and Mr. Hare, who works as extra ranger on Sundays and holidays, will back me up in saying that the Monument is at least 33 1/3 % harder minister. In other words it will take a third man to give the same ice to the visitor that two could give before the change was made.

As to the favorable comment, I have not heard of but one local on that said he liked the new arrangement and on being asked what ntage the new area had over the old one, as a parking area, he said he not thinking of either as a parking area but thought the new one would a good sheep corral. He said it was about the right size and shape was in a nice warm place and would be an excellent place for lambing.

I have some nice hot correspondence from tourists that I will Walt on his next trip here that I haven't the heart to put on paper.

As to the new parking area having a Government owned appearance is quite right about that. However, one can say the same thing about of the Government owned ~~xxxxx~~ penitentiaries.

Sincerely

Signed Jackson

Mr. Jackson is unloading a pile of grief in his report this month. might take it that he doesn't like that new parking ground up at the ezuma Castle. Of course Walt is not responsible for the decision, plan, dea of that parking ground. The plan was approved by Mr. Vint, cleared engineering by Mr. Kittredge, approved by myself and finally by you. was then sent in to execute the plan, which he did.

After all a parking ground is a place where cars can be parked afety and taken out at any time when the owner wants to go. The four ds which we have so far built, conform to those requirements. None of have shade nor do I consider it necessary that cars visiting our onal Monuments be parked in the shade. People can walk a few dozen s at Casa Grande and Montezuma Castle and eat their lunches in the shade ell built tables furnished by the Service. They have no inherent right n their cars in under the shade and there are very good administrative ons why they should not be allowed to do so. It has taken me a good to get the habit of looking down two hundred years of future visitors e of these Monuments, but now that I am getting the habit, the present or who complains at not being able to drive his car up among the ruins e Casa Grande, or up to the open door of the Mission at Tumacacori or e foot of the slope up to the ladders at Montezuma Castle, like he n ' the good old days' a few years ago, doesn't get me very highly ed. If the future visitor 200 years from now is going to have any- left to see, the present visitor is going to have to be hedged in a

little with what at times seems to him to be fool rules and restrictions.

So this parking ground takes it's place in the general development of the Castle problems and if, in cutting off the traffic and making a sacred area of the grounds at the foot of the Castle, we have spoiled the campers old grounds and have not yet provided him with a betterone, we will remedy that just as quickly as we can. In the meantime the Heavens wont fall.

In the meantime Jack has had his say; his chest must be about empty and we can all go on to the discussion of the other needs at the Castle, such as the proposed tunnel in the cliff; camp grounds; road improvement; utility buildings; administration building, etc.

The report for Tumacacori National Monument comes from Mrs. Boundey, another one of our famous H. C. W. P. Mr. Boundey was taken seriously sick during the month with ulcers of the stomack and was taken to the Methodist Hospital in Tucson where he went through a very serious operation from which, we are glad to report that he is recovering very nicely. Mrs. Boundey reports as follows:

Dear Mr. Pinkley:

George being in the hospital, it is up to me to write the report this month, and if he improves as much the next three weeks as he has the past two days he may be able to write it himself the next time.

It certainly was a comfort to have you come down and bring the folks, while I was in Tucson those first anxious days. Things were taken care of in good shape at the Monument by Earl Lemmon, the temporary man you authorized to take care of visitors. I returned home on Thursday.

There were 924 visitors at the Monument this month, among them the graduating class from Nogales and a young peoples class from one of the churches in Tucson. I noticed three names on the register from Germany and some from England.

One afternoon I saw two western tanagers, also known as the Louisiana tanager, in one of uor young mulberry trees. Evidently the phainopepla objected because he sailed in with all his haughty dignity to usher the tanagers to a nearby mosquite tree where they watched Mr. Phainopepla return to have his fill of the mulberries. It is the first year that the mulberry tree have had any berries.

At last we are getting some real summer weather and although it is pretty warm we are not complaining after such a long cold winter.

The electric lights installed during the month to run off of the hand operated Westinghouse generator are quite an improvement over hot Coleman lamps. It seems good to be able to sit in any part of the house one wishes to to read and have plenty of light.

A number of stores have gone out of business in Nogales this spring, the result, mainly, from the soldiers having been moved away.

(Signed) Georgia Boundey.

I have no fears but what Mrs. Boundey will operate the Monument in a very satisfactory manner during Mr. Boundey's abscence which we hope will not be a long one and that he will soon be able to return to his work.

ort of Asst. Sup't. (R.H.Rose): "During nearly all of the month May I was in the field with Field Naturalist Dr. C. P. Russell arrived in my district on April 17th. My April report carries account of our activities prior to May 1st. The following report l be merely a narrative on the places visited, particular blems being dealt with in special communications.

Our first stop was in Phoenix where we visited the Heard Museum the Museum of Arizona. At the former place we found one of the t artistic museum arrangements contacted on our trip. The erial was very select and was displayed to good advantage in trim, t factory-built cases. More maps, labels and charts accompanying exhibits would greatly improve the popular appeal of the layout. ry member of our personnel with a little spare time should not l to visit this museum while in Phoenix.

While at Montezuma Castle we studied the possibilities of ther development of the museum in its present cramped quarters. decision is that the addition of some labels and some two or e illustrative charts is about all that can be added until such as more museum space becomes available. The need for adequate s is present here as it is in nearly all of our Southwestern ums.

The traffic of guided trips over the original floors and ceilings ontezuma Castle is beginning to tell. Soon we must decide definitely her we shall keep the Castle in its present unmodified condition eeping foot traffic out of it entirely, or in some way strengthen floors so that they will stand incessant tread of feet for years ome. I feel this problem is worthy of a carefully studued report I suspect Engineer Attwell will have something to submit. It ices for me to say here that the Castle strikes me as a and that it would not much modification of its interior to rather l the effect of one's trip through it. If the building is kept ached as it is at present, traffic through much of it will to be discontinued in several of the rooms in the comparatively future.

On May 5th we arrived Flagstaff. From there we visited Walnut n and Sunset Crater National Monuments which are under Forest ce supervision, and Wupatki of our own system. Excavations at atter monument are under way by the Museum of Northern Arizona.

Our visit at the Museum of Northern Arizona proved most interesting beneficial. This is one of the few museums we visited that is ly making a success of this business of popularizing of scientific nation. Charts, maps, diagrams and groupings of materials are ployed to good advantage. The labels are adequate and readable. museum will prove of great interest to all of our monuments staff is well worth the time anyone takes to visit it.

While at the Petrified Forest we cooperated with Superintendent Smith in making a study of final developments of the main exhibit room known on plans and designs as the Park Naturalist's Preparation Room. I submitted a special report on this copy of which has been submitted to the Director. This report was made in such detail that it can be used in outlining plans and specifications of cases and as a guide for the arrangement of exhibits.

Our itinerary included El Morro, Canyon de Chelly, Bandelier and Santafe. We were sorry to miss Mr. Vogt at El Morro but the young Mr. Vogt, "Vogtie" was impressed into the service as our guide. El Morro is a museum of history in itself. It is without parallel among relics of its kind and nothing is too good for its protection. After visiting some of the unprotected archeological and historical sites of the Southwest that have been unmercifully vandalized, it is a delight to come to a place under Park Service protection that is yet comparatively unscarred. The maintainence of a full time ranger or custodian there cannot be brought about too quickly.

While in Chaco Canyon we visited a number of the major ruins and the museum. Here the need for instituting the standardized catalogue system exists. Now that I have these cards, this work can progress at once. Mr. Julian realizes the value of a careful check on all of his material and the recording of it in this manner.

We reached Bandelier on a busy Sunday and found Ed Rogers busy with his guided parties. The linen tags have arrived for an experiment in nature trails that we want to try there. Ed also submitted copy for the text on the mimeograph sheet to be distributed to visitors there. These are being run off now for distribution.

At Santa Fe we visited the Laboratory of Anthropology. Through the courtesy of Mr. Jesse Nusbaum, Director, we were given a wonderful introduction to his institution and an opportunity to meet the members of the research staff. While here we were given the privilege of carefully examining the bibliography card index on Southwestern subjects.

In connection with Bandelier and Chaco Canyon National Monuments, valuable material is found in Governor's Palace, Santa Fe. We appreciate the courtesies shown us by staff members of this institution in referring us th various materials of special interest to us. My report for October, 1932 carries a detailed account of a former visit at this place and I shall not repeat these observations here.

The Wayside Museum of Archeology at Coolidge, New Mexico, operated by Mr. Barton I. Staples is almost a perfect model of graphic portrayal of particular stories for popular benefit. Mr. and Mrs. H. S. Gladwin have had an active hand in the organization of the material. We hade a most enjoyable hour with Mr. and Mrs. Staples who are great enthusiasts of popularizing of scientific information

n Casa Grande National Monument comes the following cheerful report from
odian Palmer:
r Mr. Pinkley:

I will always look back on the month of May 1933 at Casa Grande
a good deal of pleasure. It has been a wonderful month. The hot
her held off until the last few days of the month and visitors came in
ge numbers. Visitorially speaking it was the second highest May in the
ory of the Monument being exceeded only by the peak year of 1930.

The total number of visitors at the Monument was 2404, coming
88 cars, an average of slightly over four persons per car. This was an
ease of 392 or 14.5% over May of last year. 677 or 28% of the total
from outside States, the District of Columbia and four foreign countries,
rmany, Argentine, Porto Rico and Mexico). California led the list of
ide States with 315 or 13%, Texas was second with 48 and Illinois third
35. Arizona furnished 1727 or 72% of our total. With the beginning
ot weather our visitors from out of State always decreases because most
he tourists are taking the northern and cooler routes. All of these
tors were gien personal service and were conducted through the ruins of
ound A on 260 trips and 219 trips through the Museum. It seems to me
our visitors as a rule aremuch more interested than they used to be.
e are, of course, still plenty of visitors who are traveling on a
dule,and who haven't time,or think they haven't, to stop for more than
inutes, but like the poor we will always have them with us. Thank the
there are still plenty more who are anxious to know something about the
ory and prehistory of the United States. And it seems to me that we have
r of the schedule type than we had in years past.

To check on the popularity of our picnic area an accurate record
kept this month of the number of people using it and we found that 849
le took advantage of it's conveniences. During the past several months
ve heard many favorable comments about the Government maintaining such
eniences for it's guests.

Along time ago I read an office order issued by either Colonel
e or Thompson regarding the maintainance of comfort stations in which
tated that there was no reason why Park Service comfort stations could
be kept as clean as those in Standard Oil Service Stations throughout
country. I took that office order pretty much to heart and I determined
our comfort stations should have a record equal to that. Our modern
ort station has been in operation over a year now and they have been
clean and when I say clean I mean clean. "Teddy" Baehr our man of all
cares for them like a woman would her living room. And does the public
eciate such things? Decidedly they do. I have had many compliments on
and as added evidence there has not been a single name written or
tched on their white walls in over a year of use.

The weather has been exceedingly fine for the entire month.
lly the temperatures for the month of May are above the 100 degree mark
y day, but this May it did not reach 100 degrees until the 25th. The
ts have been cool enough for comfortable sleeping. The maximum for the
h was 109 on the 29th; the mean maximum was 90.74; minimum temperature
38 on the 7th; the mean minimum was 47.93 and the mean temperature for
whole month was 69.33. The month was very dry with a total precipitation
nly .01 inch which fell on the 11th. There were 29 clear days and two
ly cloudy.

The number of visitors at the Monument has kept us from doing much outside work so that there is nothing much of importance along that line to report except that the loose gravel has been swept from the entrance roadway. This gravel had been left on to protect the surface until it had set or hardened thoroughly. It was swept off the edge and used to surface the shoulders. Our road funds were very near depleted but the local manager of the R. F. C. relief work came to our relief and furnished us three colored men for five days to do the work. His cooperation was very much appreciated. Sometime during the coming month the balance of the road fund will be used to sweep the parking area and paint the stripes.

We have all been very much concerned about the owls. Noone had been able to locate a nest in the Casa Grande but finally two young owls appeared about half grown a couple of weeks ago. It relieves our minds greatly for we had begun to fear that since the erection of the new roof that they might have deserted the ruin as a nesting place. That would have been a distinct loss for all of our visitors are intereded in them. In fact our owls are about as famous as the Carlsbad bats.

The little phoebe that has her nest in one of the post holes in the east room of the Casa Grande turned one brood loose about the first of the month, immediately got busy and filled the nest again with eggs and is at present again industiously setting. She has become so tame that visitors look right into her nest and she pays no attention to them at all.

Many Gila Monsters have been seen; rabbits and antelope ground squirrels are on the Monument in abundance and two families of quail make their home on our picnic grounds. One sidewinder rattlesnake has been killed so far this year. One Gila Monster was brought in to us by a local resident. Having no use for it ourselves I sent it to Mr. L. M. Klauber of the Natural History Museum, of Balboa Park, San Diego Cal. They are used there both for exhibit and for scientific purposes.

(signed) Hilding F. Palmer.

Custodian Faris of the Aztec Ruins National Monument under date of May 27th gives us the following information about conditions in his "baliwick";

Dear Boss:

Our visitors for the month total 398. This is not near the number that a year ago shows, but that might be accounted for in part by a very late spring. Some of the passes are yet closed and may not be open until in June so until most of the passes are open we cannot expect a normal run of visitors.

While the number of visitors is small, it is in no way indicative of how busy we have been . Tommy Thompson as summer Ranger has been busy on the outside and with help for a few days we have made a complete cleanup about the ruins and they present a more pleasing appearance than probably any time since they have been under my charge.

Early in the month we suffered severe windstorms and one so severe that our big signs and the flagpole were blown over. These have been replaced with larger pipe for the flag pole, and through the cooperation and goodness of Superintendent Finnan at Mesa Verde we obtained some five inch pipe for the sign supports and there will be no trouble in the future from the wind.

Several trees and a lawn were planted this month.

Almost everything that had been painted was repainted and

rovements have been made in several trail points. The museum collection completely rearranged and cleaned. Some of the finer articles and some t were quite handy to one wanting such articles have been placed in ss cases and a number of visitors have remarked how much better the eum appeared. Charts showing the ring growths of trees and the designs the pottery are placed in the museum for the visitor who might be interested.

The few visitors we have had were seemingly well pleased and it out pleasure to show Asst. Supt, Bob Rose and Field Naturalist Carl sell our attraction and have them as our guests for a day. As usual we oyed their visit very much and we want them to come back again.

We are looking for you up now any time and trust that our next ort will show a decided increase in visitors.

(signed) Johnwill Faris.

aral. Everything seems to be pointing towards a busy summer season l from the above reports you will see the boys are all ready, hoping l waiting for it.

I have spent the entire month at headquarters with the exception of e time between the 8th and the 16th when I traveled 1468 miles to Albuerque and Santa Fe on business connected with Chaco Canyon land matters. had a good talk with Dr. Zimmerman and a complete report has gone forward you on the results or lack of results of the trip.

We are all waiting now for the set-up of the '34 funds so we will ow where we go from here, and, while of course we will not be able to do much as we had hoped on those funds as we last saw them, we are by no ans discouraged by the reductions they show: spreading dollars is an old me in the southwestern monuments and we think we can make a pretty good owing at it next year.

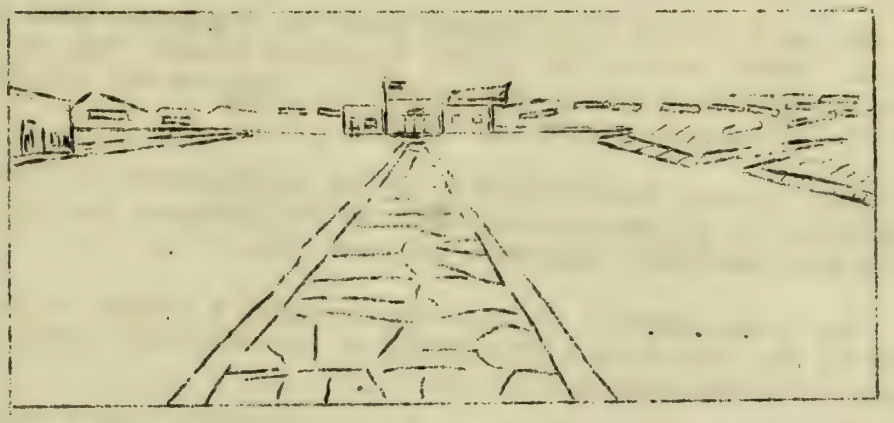
Some shifting of the personnel may occur in the next four or six eks and we may have to fill a position or two but I think we will be livering the same old brand of service from which we get remarkably few mplaints.

Cordially,

Frank Pinkley

Superintendent,

U. S. Department of the Interior - National Park Service



Petrified Forest National Monument
Holbrook, Arizona.

June 1, 1933.

The Director,
National Park Service,
Washington, D. C.

Dear Mr. Director:

Following is the report on the Petrified Forest National Monument for the month of May, 1933.

In general conditions are good in the Petrified Forest National Monument. The travel has taken a sudden jump which was expected about this time. Last week showed an increase of approximately 1,200 people through the Monument over the corresponding week of last year. East and west bound cars are about equal in number, although perhaps a slight majority are from the east.

On the 12th, during a high wind, a spark from the stove set fire to the "Greeting Station" tent at U. S. 260, and it was quickly consumed.

The weather jumped from winter right into summer, leaving spring entirely in the lurch. The first two weeks of the month were cold and windy, and the last two weeks have been very warm and clear. Rain is badly needed in the Monument and surrounding country, but the range is still in fair condition due to the heavy snows of last winter. High temperature for the month was 91 on the 30th; low was 28 on the 1st. There were 24 clear days, 4 partly cloudy, and 3 cloudy. There was no precipitation.

All work, including administrative, has been kept up to date, and the road is in fair condition. The Superintendent has periodically inspected the Monument and found everything in good shape. All members of the staff have performed their work in a satisfactory manner.

On May 1 Acting Chief Ranger Frank J. Winess was sent to the Painted Desert Section and placed in charge there. The old shack at Agate Bridge was moved to that point and repaired and painted. It is used as living quarters by Mr. Winess.

Mr. Pinkley, Superintendent of the Southwestern National Monument arrived on May 9, staying overnight at the Monument and continuing on to the more northern Monuments the next day.

Mr. W. W. Campbell of Lick Observatory, a member of the Advisory Board of the Educational Department on the National Parks, accompanied by his wife, was here on May 24.

Field Naturalist C. J. Russell and Park Naturalist Robert Rose arrived on the 8th and stayed over two days before resuming their journey. Phillip Martindale, Yellowstone Park Naturalist was here April 30; W. G. Atwell, Associate Engineer, and Wm. Stevenson, Assistant Engineer from the San Francisco office were here on the 7th; and Mr. Chas. A. Richey, Assistant Landscape Architect, with Mrs. Richey, were here on the 20th.

Mr. Lee Kirby, Supervisor of Sitgreaves National Forest, in company with Major P. L. Thomas, Emergency Conservation Officer in charge of this District, visited the Forest on the 7th. Major Thomas came again with Mrs. Thomas later in the month. He plans to visit us more in the future.

Other distinguished visitors were Mr. W. B. Collinson, Santa Fé Land Commissioner, on the 12th; Mr. Dyne, Mr. Grant, and Mr. Dowell, Arizona State Highway Commission, on the 17th; Mr. Price of the General Land Office on the 6th; Edgar Knight, Secretary of U. S. 66, Grand Canyon, Boulder Dam Highway Association, on the 7th; and Mr. Wm. M. Hays, District Passenger Agent and Gene Allen, Regional Manager of the Western Greyhound Lines, Inc., on the 22nd. Dr. Charles L. Camp of the University of California with his wife and party were guests of the Superintendent on the 18th. On the 31st a party representing the Continental Oil Company were entertained at the Painted Desert by Acting Chief Ranger Winess. The party of 23 was headed by Mr. Dan Moran, President.

It was necessary to do quite a bit of maintenance work such as rip-rapping, etc., in the Rio Puerco above the new bridge in anticipation of high water, also on a culvert near the Second Forest. This work is now completed, and, barring dust, the highway is in fine shape throughout the Monument.

Continuing work on the camp grounds, the first ramada, or shade shelter, was finished on May 25. It is a very fine piece of work and a much needed shelter for the camping tourist on these hot summer days. Many comments have already been received on its construction and very welcome shade.

59
(1931)

UNITED STATES

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

STATUS OF PERSONNEL

hwestern ..... National ~~Park~~ Monuments for the Month of May, 1933.

	This Month		This Month Last Year	
	Appointed	Non-Appointed	Appointed	Non-Appointed
em ioyees beginning of month	23	1	25	0
of additions	3	34	1	14
	26	35	26	14
of separations	0	34	0	13
of em loyees close of month	26	1	26	1
of promotions during month	0	0	0	0
te amount of annual leave taken	16	0	30	0
te amount of sick leave taken	0	0	0	0
te amount of leave without pay	0	0	0	0

MAY SUPPLEMENT
TO THE
MONTHLY REPORT
******

DEALING WITH INTERESTING FACTS
ABOUT PERSONS AND THINGS.
******

For some time we of the Monuments have been hoping to find some transparent preparation that could be sprayed on the walls of our ancient ruins that would act as a preservative and weather-proofing material to take the place of the unsightly cement cappings that we have used heretofore.

Several different materials have been tried out but none of them so far have proven satisfactory when applied to the ruins themselves although laboratory tests were generally favorable.

The following report by Mr. L. C. Peterson, chemist for the Truscon Co., who visited the Monument with the expectation of applying a test of his Company's material "PeneTex", seems to explain why all of these preparations failed when applied to the ruined walls. Under date of May 8th Mr. Peterson reports as follows:

Mr. H. F. Palmer, Custodian,
Casa Grande Nat'l Monument,
Coolidge, Arizona.

Dear Mr. Palmer:

This will act as a report of our inspection of the Casa Grande Ruins on April 20th, together with our various suggestions and recommendations as to a logical solution of the troubles of erosion, etc.

As you will remember, we had originally intended to apply some samples of our Penetex treatment on the exposed flat surfaces of the ruins but due to showers previous to our calling at the ruins which left the surfaces damp, we were unable to apply the treatment the day we were there. We thought we might be able to take some of the sections that had previously been coated with cement plaster, (removing the plaster which should give us a dry surface) and make some tests; however, upon removing some small sections of the concrete plaster, we found that the wall sections under the plaster was completely decomposed for varying depths. This was a considerable surprise to us as we noticed that on a given wall section that had not been plastered and was exposed and was ajacent to the section that had been plastered, ACTUALLY STOOD UP BETTER AND WAS IN A BETTER CONDITION than the plastered section. Upon examining several more places under the cement plaster, we found the caliche had broken down into a powdered mass which fell out when the plaster was removed; this being in contrast to more or less the original appearance where wall was exposed.

It is true that any exposed sections are gradually weathering away, and there is no doubt that in a relatively short time the weather and erosion will level the ruins. In getting at an explanation of the seeming contradiction of more rapid decomposition under the plaster, we feel that our ORIGINAL PLAN OF PRESERVATION IS ALL THE MORE STRENGTHENED. (Mr. Peterson had had considerable correspondence with us before visiting the Monument in which he had stated that before any good results could be obtained that ground water must be shut off). In examining sections under the plaster, we found moisture even at considerable depths. This means that moisure comes from two sources without a doubt; first, from rain on the surface "penetrating-in"; and second, moisture from the ground "absorbing-up" from underneath.

In case of the plastered sections, the surface rain was shed more or less and no direct erosion occured from this source, but the "ground-absorbed-moisture" was held in the wall after it came up due to the plaster preventing it's evaporation out into the air. Now, in the case of same wall, not plastered, the surface rain causes gradual progressive erosion, but the ground moisture can evaporate after it is absorbed up; therefor in the plastered sections, the ground moisture was retained to a much greater degree and this caused decomposition which the actual facts show to be true.

The foregoing leads us to the conclusion that NO TREATMENT OR ANY OTHER METHOD OF PRESERVATION WILL BE SUCCESSFUL UNTIL " GROUND*MOISTURE*ABSORPTION " IS CUT OFF.

From our observation of the ground around the ruins and from what is told us of the ruins, etc., we are of the opinion that concrete curtain walls going down at least two feet, and preferably three, below grade level, will cut off a major portion of the ground water, resulting from rain soaking into the soil and the resulting underground flow. Of course, the nature of the soil exposed ajacent to the ruin section, at time of excavation for curtain walls, will give considerable data as to the size and extent of curtain walls needed to cut off this flow.

To make our further suggestions plain, we call your attention to the rough cross-section sketch attached:-

"A" -- The approximate cross-section of a ruin wall

"B" -- Trenches excavated on both sides.

"B" & "C" -- The concrete curtain walls, at least 4 inches thick, extending down two or three feet, joining as closely as possible to the bottom of the ruin; THESE TO HAVE A GOOD INTEGRAL WATERPROOFING IN THE CONCRETE SUCH AS "TRUSCON WATERPROOFING PASTE"--- made out of a very good dense mix.

"D" & "E" -- We suggest a concrete shoulder tapered off gradually from top of curtain wall to bottom side of ruin wall.

"F" -- After curtain walls are in, the bottom of the trench should have a layer of coarse rock or gravel. -- (drainage passage)

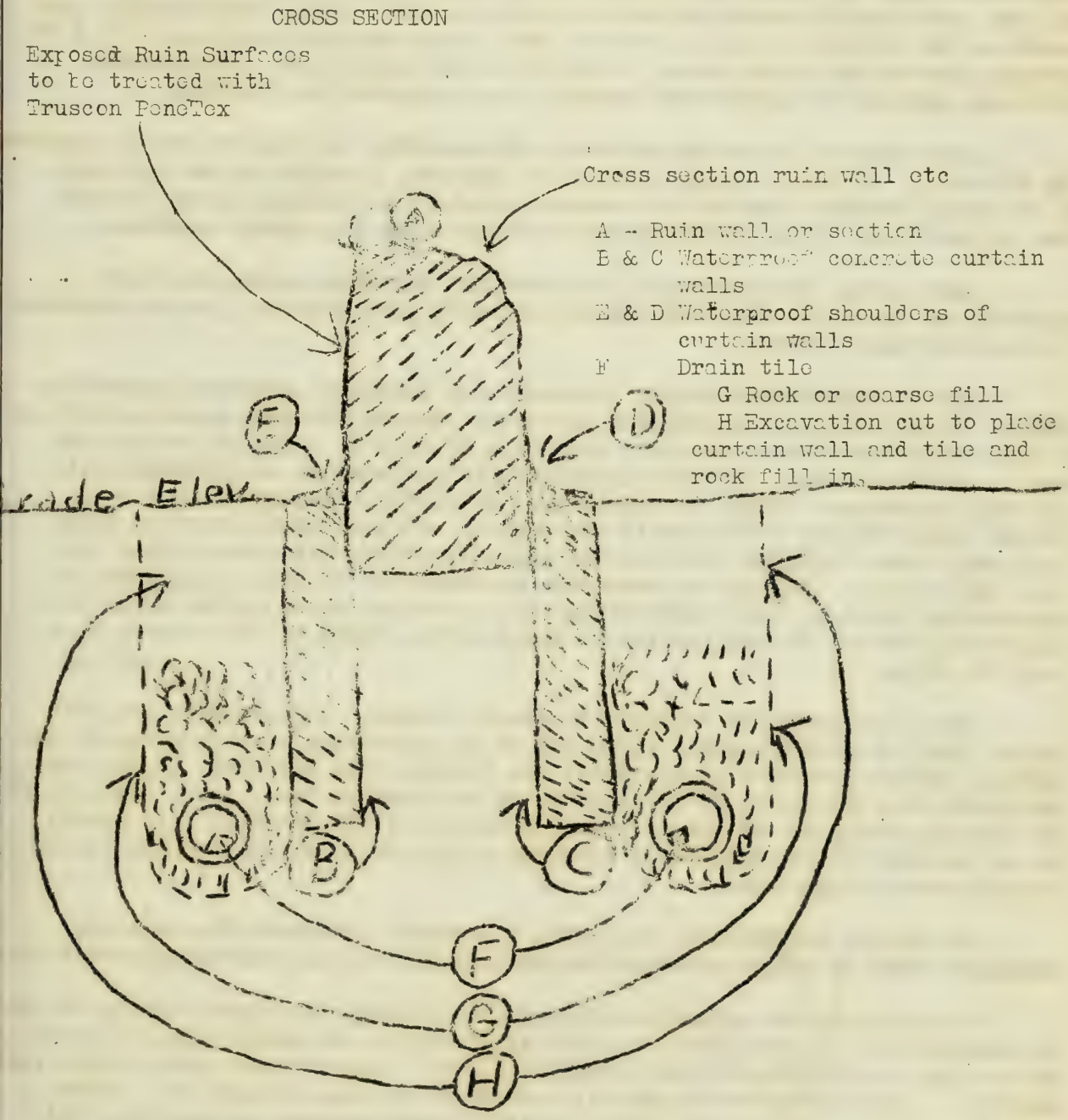
"G" -- Both sides of trench to have a line of clay drain tile, installed with slope, giving drainage off to sumps or lower spots where the water can be carried away from the direct base of the ruin walls.

"H" -- Another layer of coarse rock or gravel above the drain tile. This rock can extend almost to the surface, and be covered with just enough top soil to match the other grade top soil in looks.

WATERPROOFING CASA GRANDE INDIAN RUINS

SYSTEM SUGGESTED BY TRUSCON LABORATORIES # * 27 - 33

CROSS SECTION



After this work is done, the ruin wall, proper, should be given sufficient time, at a dry season, to completely dry out. In the meantime, any cracks in the ruin wall, any pockets or any other irregularities that would hold rain water or allow rain water to run into the ruins, should be pointed up with some freshly mixed caliche to match the ruin wall. PARTICULARLY, this caulking or pointing should be done at the joints shown as shoulders "D" & "E" between curtain walls and ruin. This all being done to get a CONtinuous, SUITABLE surface to receive the exposed area preservative, PENETEX.

After the walls are so prepared, AND ARE DRY, the PeneTex can be applied In this case, if there is any question of dryness, it might be well to make a few small borings (similar to a cement sampler) in various places through the walls to see if the interior areas are dry from the ground moisture.

Just before application of the PeneTex, any dust, scale, or loose material on the ruins should be dusted off with soft brush or low air pressure in case air gun is used.

APPLY PENETEX GENEROUSLY: PeneTex is a liquid of peculiar properties. First, it has enormous penetration capacity; Second, it sets up or hardens in a relatively short time, which is increased by heat or sunshine as on a hot day. After it sets, it BINDS STRUCTURALLY, and renders waterproof$ (without any appreciable change in appearance) to depths possibly as much as $\frac{1}{2}$ to one inch; thereby resulting in the section adjacent to the surface being hardened, bound together structurally and waterproof, with practically the same appearance. Due to the continual accumulation of dust blown from the surrounding terrane, any slight change in appearance which may be noticible immediately after the application of the PeneTex, would be obliterated in a very few days.

The penetration of PeneTex, as stated before, will be from one-half to one inch in depth, meaning that, due to the different consistencies of the various caliche material in the Ruin, the PeneTex will penetrate to varying uneven depths, resulting in an increase of the bonding area. The increase of the bonding area, due to the uneven penetration of the PeneTex, will result in an increase in the structural strength of the wall between the penetrated and unpenetrated portions.

The uneven penetration will also, of course, eliminate the spalling tendency found in Ruins treated with concrete or average penetrating materials.

Taking the above properties into consideration, the first idea is to appl as much PeneTex to the surface as it will absorb. We would suggest by use of an air gun, using rather a low pressure, a small stream, held close to the ruin surface. The use of an air gun will avoid the wearing action of a brush which would probably just knock more caliche loose during application. This

D

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D

application should be done at some time avoiding as much heat and direct tense sunshine as possible in order to keep the PeneTex liquid as long as possible, thereby effecting more penetration before it sets. Under ordinary temperature, it will stay liquid as long as 15 to 20 minutes, but we can easily see that a hot summer day in the desert would set PeneTex so quickly as to render its penetration almost nil. Therefore, in view of the above, apply liberally, working on a relatively small area until absorbtion is complete. Naturally when no more will absorb, the excess will remain on the surface as a surface scum or film, this being of no disadvantage EXCEPT that it will show up badly and change the looks of the surface: therefore, we advise watching this carefully, GIVING THE SURFACE ALL IT WILL ABSORB, BUT STOPPING BEFORE EXCESS REMAINS OR RUNS DOWN THE SURFACE WITHOUT PENETRATING FURTHER. In using a gun for application, watch that the gun does not atomize the PeneTex into a fine spray, but try to get merely a sprinkling, or flushing, action, getting as great a quantity of PeneTex on as quickly as possible.

We further suggest, for experimental purposes, that several days after a given area is treated as above, you try to apply a second coat. This will tend to cover any possible spots missed in the first coat; ALSO, if the second coat will still penetrate satisfactorily, it might increase the beneficial results considerably by greater strength and protection. This can be compared with one-coat areas.

Finally, the success will depend entirely upon getting CONTINUOUS AND COMPLETE APPLICATION OF PENETEX. In other words, run the spray over the concrete shoulder,- fill any irregularities with the caulking compound of caliche, mentioned previously; be sure the treatment is continuous from one concrete shoulder up-over-and-down to the other side--this all to prevent surface rain from gaining entrance and working behind the treatment.

The preceeding report may seem very detailed, but there is no doubt but what the problem is very difficult and, therefore, will require careful work and means to overcome; in other words, if it is done at all, it should be done right and as careful as possible.

With reference to possible costs on unit areas, etc., obviously, this will be almost impossible to estimate. Various sections will absorb different amounts and conditions will vary so much that we will just give unit costs of material. Also the cost of labor will vary considerably.

First, for the concrete curtains we recommend a DENSE MIX. It should have some coarse aggregate, but not as much or large as ordinary mass structural concrete; possibly a cement-sand-pea gravel mix would be very good. On mass concrete we use approximately seven pounds of Truscon Waterproofing Paste per cubic yard; this obtained by using a special metal measuring cup we supply-- one cup of paste per gag of cement. In your case, it would be well to use TWO CUPS per cubic yards of concrete or 14 pounds of paste per cubic yard. This we recommend in toppings, plaster, etc., so in your case should be very appropriate.

On PeneTex we hesitate very much to give estimated coverage. On concrete floors it will treat approximately 200 square feet per gallon per one coat; however, in your case, where surface is extremely porous, and we are especially trying to saturate the caliche, it would not do over 100 square feet per gallon under ideal conditions and may run as low as 50 sq. ft. per gallon or less in bad spots?

Mr. Peterson's report has covered the case excellently.

No doubt some of you have read Engineer J. B. Hamilton's report and recommendations for the repair of walls at Aztec Ruins National Monument. Mr. Peterson's recommendations follow Engineer Hamilton's recommendations very closely with the addition of the condrete curtain walls.

Mr. Peterson had not seen Engineer Hamilton's report when he made his inspection trip and neither has he seen it since. The two recommendations were developed independently.

When experts agree as closely as these two do it looks as though we had a plan that was really worth while and that at last we are getting somewhere with our ruin protection.

Mr. Peterson's report has been submitted to Engineer Hamilton for his reaction to the curtain walls and to get his opinion on them as to their value. If his answer is favorable a small section of wall will be fixed according to this plan as a test. Further report will be made in the next monthly report.

* *

Announcement of the birth of a 9¼ pound baby girl to Ranger and Mrs. Frank L. Fish of Casa Grande National Monument was unintentionally left out of last month's report. This fine girl arrived on Easter Sunday Morning.

* *

As we go to press, word comes that Mr. Boundey is getting along fine. It takes more than a little thing like four doctors putting a fellow under ether for a couple of hours and extracting various parts of his internal economy to kill a Park Service man. However there is no sense in tempting the doctors too far and we hope George stays away from hospitals from now on and forevermore.

********** **********

Which reminds me that last winter when Custodian Palmer had just come through a narrow shave we slipped a nice little compliment to the"Doc" for snatching him back when he was so close to going that he smelled of sulphur for several days. Then Palmer had to back slide and have a relapse before we went to press and get into another serious hole, causing Bob Rose to re-cut the stencil for that page and take the alleged joke out of it.

* *

Mr. and Mrs. Frank L. Fish are spending Frank's accumulated furlough in Northwestern New Mexico. Frank expects to spend the entire time riding horseback. They took the baby away just when we were getting used to it and is it going to be lonesome at Casa Grande for a month.

* *

Considerable correspondence has gone on between Field Headquarters, The Superintendent and the Director regarding a tunnel at the Montezuma Castle National Monument whereby visitors could be conducted around behind the rooms to the Castle, allowed to look into the rooms and see everything, but still not get onto the original floors and ceilings, which are causing considerable worry for fear they may give away or be destroyed by constant traffic of visitors The idea is the Superintendent's.

Landscape Expert Tom Vint objected to the tunnel saying in effect that "he didn't like it and that he wouldn't like it even if it was good".

The Superintendent, in two pages of closely typewritten matter takes issue with Tom and says in effect that, "in-as-much as the tunnel will be

inside the cliff and not exposed to view that the Landscapers are entirely out of order in criticizing the plan.

The matter was under consideration in the Washington Office at last reports.

* *

So far as we know noone in Southwestern Monuments has ever before had a poem dedicated to them.

With the possible exception of Superintendent Boles probably that statement holds true for the entire Park Service.

The honor of having such a thing happen first to a member of our organization falls to Hurst R. Julian, Custodian, Chaco Canyon National Monument.

The following poem was published in Southwest Tourist News. The author is a newspaper man of Farmington New Mexico.

A PATH AT PUEBLO BONITO
Dedicated to Hurst R. Julain,
Custodian, Chaco Canyon National
Monument, who makes the Ancient
Past glow with livid interest
to those who journey to that Prehistoric
Wonderland of the Navajo Country.

Along a path I loiter, where
An ancient race once toiled it's way-
These stones, I walk on felt footfalls
Back in a prehistoric day.

These stones, all smoothlywhite, like gems
Tight-set in earth, gleam in the sun
And down this old mosaic path
Where many ancient feet have run.

The years have wrought age long upon
The tapestry of Time's old loom
Since those who long lived here fled down
This path to unrecorded doom.

Cycles of time have gone their way
At their unhurried, measured rate,
And swallowed up the history
Of this old people's unknown fate.

And these white stones imbedded here
Once warmed with press of busy feet,
Could tell the story, having seen
That ancient and unsung retreat.

-Orval Ricketts
(Sagebrush Slim)

Now, you fellows who have had poems written about you or dedicated to you dig down in your files and see if you can match this one.

* *

Again the bulky volumes of the Superintendent's reports have ome and gone through our office and again we are impressed with the mall amount of space devoted to the visitor himself. We are finding ut that we can do without money, we can do without roads and new con- truction of all kinds and quality, some of us are finding out we can et along with less personnel, and we can still keep things going and et along first rate; but it doesn't seem to dawn on many of us that if he visitor stops coming this Park Service organization will fall apart ike a busted cuckoo clock.

****

And, speaking of visitors, will somebody tell us why a visitor ill go over to Carlsbad and stand around two hours in the sun waiting or the party to start down into the Cave, and never raise a protest; ut the same visitor, upon arriving at Casa Grande, feels that he is etting poor service if he has to wait ten minutes for a party to gather r for our man to finish up with his previous party and get ready to tart another one? This is a fact that has long puzzled me.

****

And why is it that a doctor or a lawyer or a dentist, who may ave spent some six or eight years learning his trade, and who would ax highly indignant if we went into his office and tried to straighten im out on some of his technique, will cheerfully knock off some Sunday nd come out and attempt to show us that our statements are all moon- hine made up out of an overheated imagination? Hundreds of times we ave cheerfully given such a visitor three or four dollars worth of time xplaining the simplest of our problems in such detail that he can grasp he fact that our business is about as complicated as his own, but it ostly goes over his head and he goes away thinking he knows fully as uch about our Monument as we do ourselves. Some day we are going o get mad enough about this to send one of these birds a bill for "One ffice call, consultation about ruins, four hours at $3.00 per hour,-- otal,$12.00." and then sit back and watch his blood pressure go up!

****

We have a lot of pet peeves about visitors which we may radually let out of our system now and then as time and occasion arises, nd you needn't call us on the fact that it is only five per cent of the isitors who are sour; we know that but it doesn't help matters much; ry, for instance, to get some consolation out of the fact that you will nly have to eat five bad eggs out of the next hundred you have for reakfast. Visitors are a steady diet with us and we contact them s no park in the system does excepting Mesa Verde; bad ones never get ny sweeter, and my hat is off to the Park Service man who can come up miling when he bids good-by to a party of them. Of course it is his uty to do it but there is no law against cheering a man for doing his uty.

****

We want to call attention to the cover this month, which is he handiwork of one of our staff artists, Edgar Rogers, and represents ne of his pet ruins in Bandelier as it would have looked from about alf way down that heart-breaking trail by which the visitor enters ijoles Canyon; the fact is I can't get much kick out of the picture or thinking how far it is back up the trail to the top.

H

Just as we are about to go to press more information regarding the surfacing and protection of walls at the Casa Grande comes to us in a letter written by Engineer Hamilton to Chief Engineer Kittredge giving his reactions to the plan suggested by the Truscon Laboratories which is described in detail elsewhere in this supplement. Mr. Hamilton says:

Dear Mr. Kittredge:

I am enclosing copies of letters from Mr. Burney to Mr. Hilding Palmer and myself together with the letters from Mr. Palmer and Mr. L. E. Peterson of the Truscon Laboratories, to which Mr. Burney's letter refers. I believe if you possibly can you should review this correspondence before advising Mr. Palmer to proceed with the tests.

A agree with Mr. Burney that Mr. Peterson's product should be tried out as well as any others that show promise. From what Mr. Peterson says it should be applied at night or on a clody day.

As Mr. Palmer says Mr. Peterson's method of the treatment of the drainage problem at the base of the walls is very similar to that mentioned in the report on the Aztec Preservation which I believe you suggested.

I am doubtful of one or two points shown on Mr. Peterson's sketch. Might notthe weight of the ruin wall crush the prism of earth directly beneath it if it's width is no greater than that of the wall. Especially if this prism is dampened by moisture from the freshly deposited concrete? I should preder to slope the sides of this prism away from the ruim wall at 45 to 30 degrees from the vertical.

I also wonder if it might not be possible to treat this underlying prism with PeneTex so as to present a continuous waterproof surface from the top of the wall to the bottom of the trench without the use of concrete. As I understand it the foundation of the walls at Casa Grande are of practically the same substance as the walls. I know that the wall mortar and foundation earth are the same at Chaco Canyon and Aztec.

Mr. Peterson does not mention the reinforcing of the concrete 'concrete curtain walls ' nor using expansion joints, though I am sure they would be necessary to prevent expansion cracks which would allow moisture to penetrate. If it is impractical to treat the foundation prism with PeneTex might it not be advisable to use a layer of Gunite with rein forcing mesh in place of the curtain walls as shown? From what little experience I have had with Gunite I believe there would be but little moisture absorbed from it.

(Signed) J. B. Hamilton.

Didn't I tell you we were going to get some real plans for protecting our ruin walls? Next month we will give you the Chief Engineer's reaction. You see one engineer likes to pick the other engineer's plan to pieces and tell him how it can be improved and when they are all through picking on each other you have the absolute ideal solution to the problem. The Landscapers and the Engineers went round and round with each other for two years about the roof for the Casa Grande and finally all the bad points were eliminated and the good points of everyone'plan was retained and we have a crackerjack of a roof.

And in closing this supplement to this month's report I want to talk to you about a matter that I have been thinking about for sometime and I am moved to remark about the large number of GOOFS who drive Government owned cars. How is it that all these youngsters who are looking for facts to use in a thesis have overlooked this wide field for original research?

You put a pick or a shovel in the hands of one of these goofs and in an eight hour shift the gentle friction of his usage will neither develop blisters on his hands nor heat the wooden handle so you could notice it. On the other hand, you put that same goof in a Government car to send after some picks or shovels which you want to use week after next and what do you find?

Why, although you may issue warnings, directions and instructions longer than your arm about this car not having been purchased for racing and you are in no hurry at all for the tools, the Goof will do his best to average 60 miles an hour, and when he has ruined the car he will come in with the alibi that the car was only a Ford to begin with so couldn't have been any good and although it had three wheels missing when he took it out and he kept the water two inches above the radiator cap and the oil four inches above the "full" point and never drove more than 25 miles per hour the contrary critter burnt it's bearings and cracked a cylinder head just to spite him.

And then you fire the Goof and he goes off with his feelings all hurt and tells how unreasonable you are because you are praying a kind Providence to send you a man who can get interested in miles-per-gallon and not miles-per-hour out of Government equipment, and you go hire another man and are ready to start all over.

WHERE DO ALL THESE GOOFS COME FROM ANYWAY?

* *

In his last paragraph on page 14, Mr. Rose omitted to state that the Wayside Museum of Archaeology, at Coolidge New Mexico was built with a donation from Mrs. Mac Curdy -- the present Mrs. Gladwin - but is correct in saying the material was organized by Mr. and Mrs. Gladwin and Mr. amd Mrs. Staples are operating the museum.

It will be recalled the Wayside Museum in Grand Canyon National Park came from the same sources and is operated by our Service.

* *

The back cover page to this report is the work of another of our staff artists, Frank L. Fish, Park Ranger at Casa Grande National Monument.

* *

We hope this little piece of advertising on the back cover will convince some of those who see it that we have some special problems of operation. Scatter a Park over four states in 24 different places, underman and under finance it and you begin to get the idea. Moving one of our men from his winter quarters to his summer cabin, he reports 954 miles of travel.

However with all it's drawbacks we wouldn't swap jobs with one of these Superintendents who has only one Canyon or one Cave to handle.

* *

WE'LL BE SEING YOU NEXT MONTH.

The Boss.

Every state in the Union was represented and the territories of Hawaii and the Phillipine Islands. People registered from Belgium, Spain, Peru, Canada, Mexico, Portugal, England, Federated Malay States, France, Ireland, India, Germany, Cuba, Japan, China, and Holland.

On Sunday, May 28, a very impressive ceremony was performed by the Chalcedony Lodge No. 6, F. & A. M. of Holbrook, Arizona. Mr. J. W. "Jack" Jackson was a former resident of Holbrook up to about 1928 for a period of 18 or 20 years. He had been an ardent lover of the Petrified Forest and when he passed away last December in California, his son stated that Mr. Jackson's last thoughts seemed to dwell in this region which he loved so well. It was his last wish that his ashes be scattered over the area in which he had spent so many happy hours, by his Masonic Brethren. This service was performed by Worshipfull Master Sam Turner, assisted by Brother Reverend Niles and about 20 members of the Fraternity. Many old friends of the deceased were present, among whom was William Nelson, former Custodian of the Monument.

During the month a total of 28 cars used the camp ground over night and in some cases longer. In addition to these many cars now stop in for lunch and are very much pleased with the welcome shade of the ramada.

Very respectfully,

Chas. J. Smith

Chas. J. Smith, Superintendent.

In the distinguished visitors list we almost forgot to mention Poncho who visited the new museum for the first time on the morning of the 19th. The former members of the Forest organization will remember Poncho as the four foot pet bull snake down at the old museum.

There are now an abundance of desert wild flowers in the Monument with lupine, larkspur, and bronze bells, or Mariposa lily the most beautiful. There are also Roadside or Salmon Mallow, beggar's ticks, yucca, and the cacti which is about ready to bloom.

Birds seen around the Museum include the horned lark, rock wren, sparrow hawk, and night hawk. Four species of lizards have been identified. They are Crotaphytus, Sceloporus, Holbrookia, and Cnemidophorus.

Myrl V. Walker entered on duty as Ranger Naturalist on the 16th, and has handled most of the visitors in the museum since that time, assisted by rangers. Justin Dean Kirk entered on duty as seasonal park ranger on the 2nd.

Two of the rangers showed remarkable agility while replacing a warning sign. Rangers Miller and Reid while crossing the Monument noticed a sign which had been pushed over. Miller started to replace the sign while Reid gathered up a double handfull of debris to place around the sign. A rattlesnake which he had picked up with the debris sounded his warning at this point and it is said that Reid made a record standing jump of 15 feet, casting the snake away from him at the same time which wrapped itself around Miller's ankle. Miller beat Reid's jump by several inches. During the excitement the reptile made good his escape.

Travel for the month shows a slight decrease from the same month last year. However, if the busses were running through the Forest now as they did last year, an increase would be shown. A peculiar fact is that less people and more cars have come through than were registered last year up to the same date. Travel for the month follows:

For the month, Petrified Forest section,	cars	2,441	people	7,570
Previously reported.....	"	7,104	"	20,261
Total to date.....	"	9,545	"	27,831
For the month, Painted Desert section,	cars	5,181	people	15,647
Previously reported.....	"	9,042	"	28,973
Total to date.....	"	14,223	"	44,620
Grand Total for May.....	"	7,622	"	23,217
Grand Total to date.....		23,768	"	72,451

Last year grand total same date..... 27,763 people.

BULLETIN
LAST MINUTE FLASH

BOB ROSE AND MISS MARIE AWREY WERE MARRIED AT 4.00 P. M.

JUNE FIRST 1933 AT COOLIDGE ARIZONA.

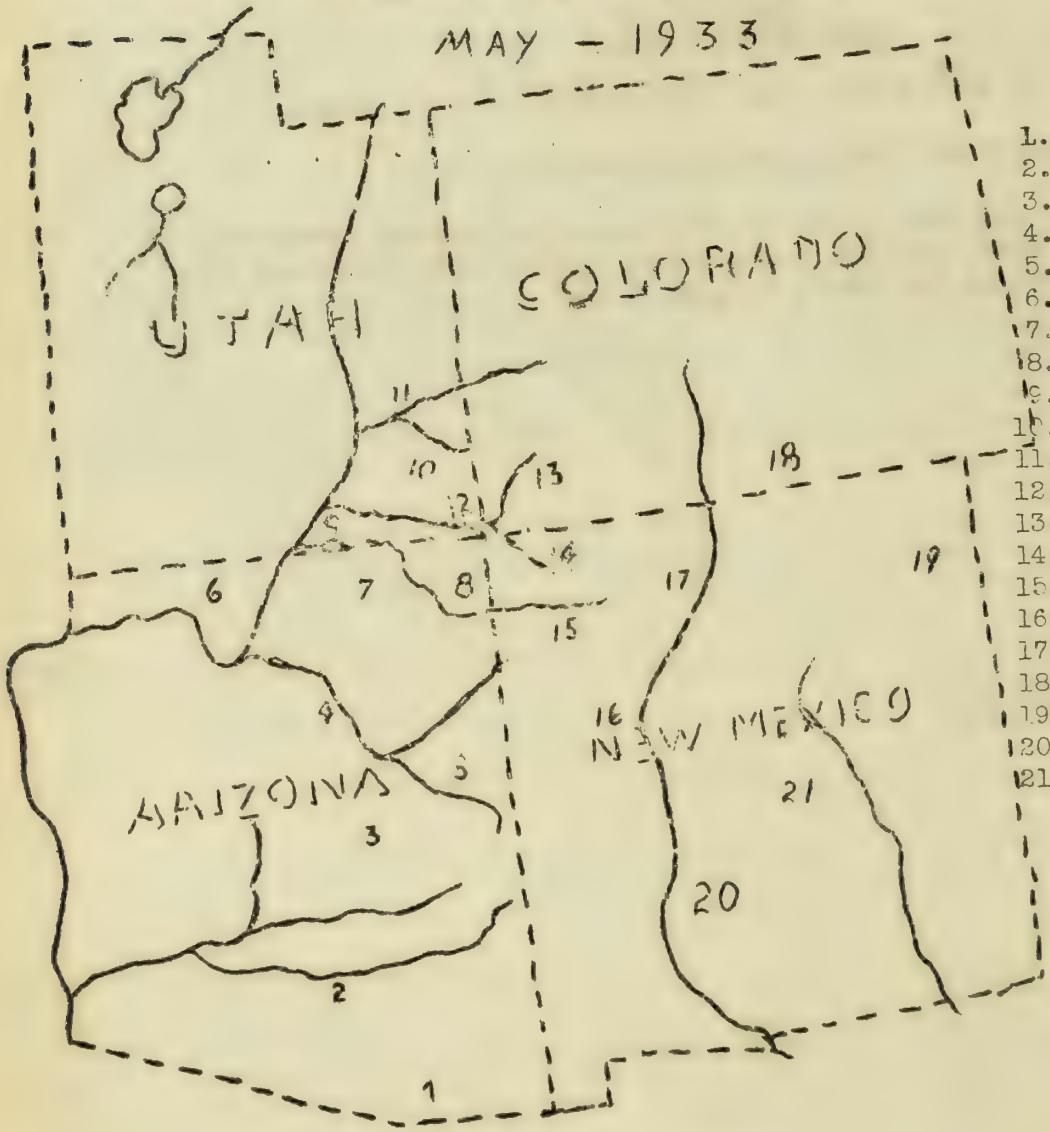
They have the best wishes of the whole Southwestern Monuments force. We have acquired an Assistant Superintendent Without Pay. Congratulations Bob from your old

BOSS

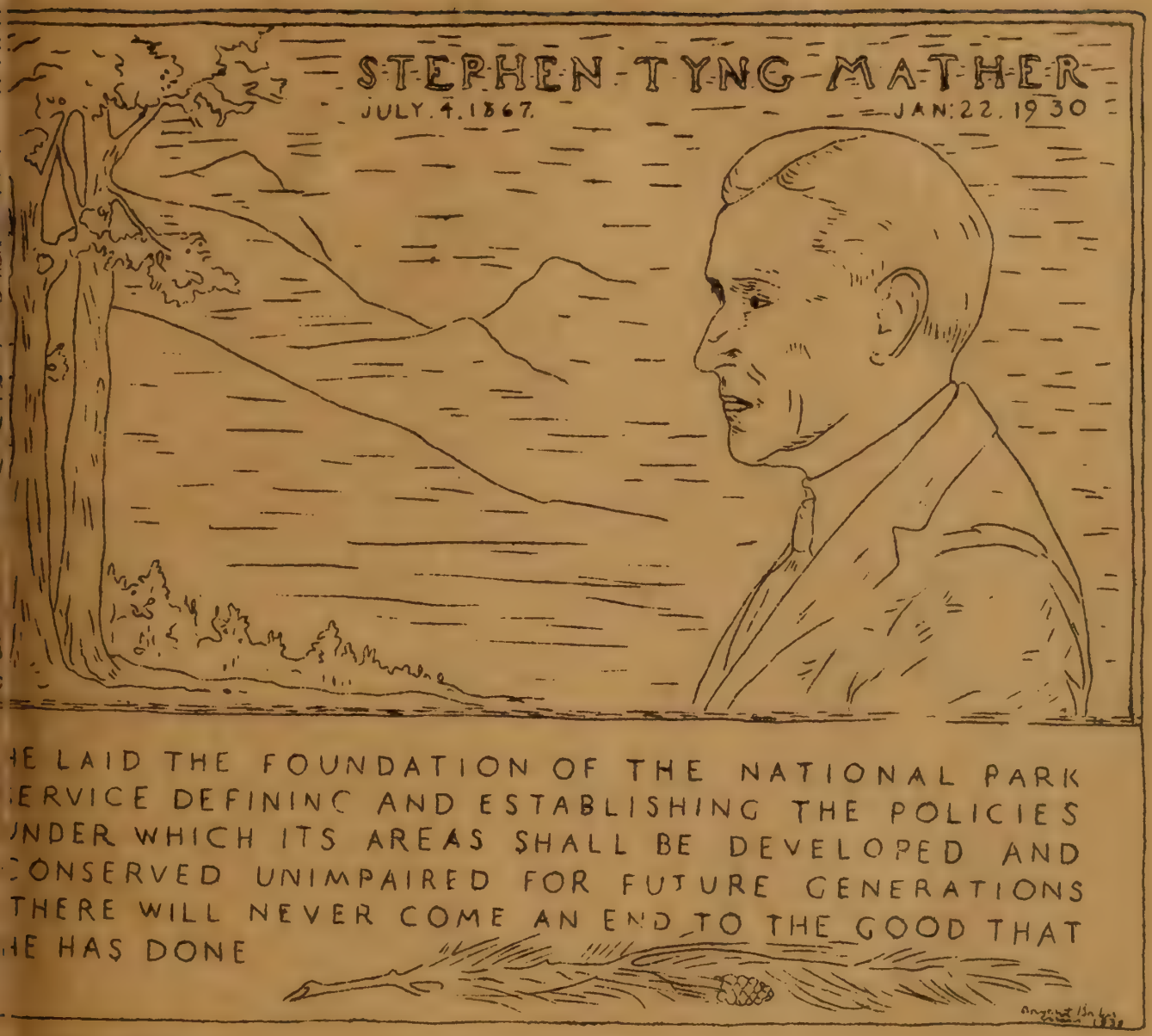
SOUTHWESTERN MONUMENTS

MONTHLY REPORT

MAY - 1933



1. Tumacacori.
2. Casa Grande
3. Montezuma C
4. Wupatki.
5. Petrified F
6. Pipe Spring
7. Navajo.
8. Canyon de C
9. Rainbow Bri
10. Natural Bri
11. Arches.
12. Hovenweep.
13. Yucca House
14. Aztec.
15. Chaco
16. El Morro.
17. Bandelier.
18. Gr. Sand D
19. Capulin.
20. White Sand
21. Gran Quivi



SOUTHWESTERN MONUMENTS

MONTHLY REPORT

JUNE—1933

IN MEMORY OF

STEPHEN TYNG MATHER

DIRECTOR OF THE NATIONAL PARK SERVICE

1916 - 1929

BORN JULY 4 - 1867

DIED JAN. 22 - 1930

THE MEMORY OF HIS ACCOMPLISHMENTS WILL

ALWAYS INSPIRE US TO GREATER DEEDS.

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TABLE OF CONTENTS (CONTINUED)

UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
SOUTHWESTERN MONUMENTS

Coolidge, Arizona. July 1, 1933.

The Director,
National Park Service,
Washington, D. C.

Dear Mr. Director:

Another month has slipped into history and again we gather up the various reports from the Southwestern Monuments and show how little we got done of the many things we expected to do during the month of June, 1933. Time has a habit of slipping away faster than we think and visitors have been keeping some of us so busy that things had to be put off from day to day and week to week until finally some of them had to go over into the next month.

Personally. I made a short field trip of 2,333 miles during the month, using 122.5 gallons of gasoline in the Ford V8 and averaging 19.04 miles per gallon for the trip. This is better than my trip in May, when, with the same car I ran 1,468 miles on 78 gallons, or an average of 18.8 miles per gallon. However I hang these records up for what they may be worth and will let some of the other drivers of eights shoot at them. One of the best single runs was from Santa Fe to Gallup, 223 miles using 10 gallons of gasoline.

On this trip I left my headquarters at Casa Grande National Monument on June 9th, driving to the Petrified Forest National Monument that day. The next day I went on to Canyon de Chelly where I remained over night at Cozy McSparron's pleasant place, looked over the Canyon and examined the newly set survey posts, put in by the General Land Office. I found that the quarter post between sections 15 and 22 is set about four hundred yards east of Cozy's place. This means in general terms that we control the land at the mouth of the Canyon and can find a reasonably good location for our administrative area when we come to setting up the general development plan for that new Monument. Cozy's place will fall inside our boundaries as described in the Proclamation as will the Indian School at Chinle. This latter is something we had not bargained for, but, upon turning it over pretty thoroughly, I see no particular objection to it from either side: we have always had very pleasant relations with the Indian Service and nothing will need to come up at that point to disturb them.

On the 11th I left Canyon de Chelly and went through Gallup and Thoreau out to the Chaco Canyon National Monument. I had expected to find the summer school of Archaeology from the University of New Mexico at work at Chaco but found that they had put off the opening of their work until June 20. Mr. Reginald Fisher, Engineer for the school, had been in and done some further excavating and bracing work in the ruins of Chetro Ketl.

I remained the 12th at Chaco Canyon and left on the 13th, driving through Cuba to Santa Fe and on out to the Bandelier National Monument. Here I found Ed Rogers in charge and everything going along in good shape. He seemed to be having a good run of visitors.

I remained at Bandelier on the 14 and left on the 15, going through Santa Fe, Albuquerque and Belen to Mountainair. On the 16th I went out to

Quivira National Monument and looked over the well which Mr. Huey is drill-
or us there. I might report here that at the end of the month he was
the 600 feet his contract called for, with our funds exhausted, a dry hole,
he next chance for a water bearing strata about 180 feet deeper.

After talking over the situation with Mr. Huey I next examined the
and tunnel of the treasure diggers who are working on that Monument under
t. I went down the shaft some 40 feet to its bottom and out into the
l some forty or more feet. They have everything braced up all right
consider it a safe enough job. They are not at work now, but expect
gin work in July and move quite a bit more rock before they give up.
talked with one of the party in Albuquerque and told him they could work
eir pleasure but to remember that their permit expired with the calendar
and we would like to have them get through by that time.

We also looked over the repair work Mr. Smith had been doing with his
ent funds and found it very satisfactory. We then drove through to the
tified Forest.

I laid over at the Forest two days and then drove back to Santa Fe on
19th to meet Messrs. Wright and Thompson, of the Wild Life Division, and
Vint of the Branch of Plans and Designs.

On the 20th we were all out at Bandelier National Monument, where the
Life Division got its first chance to study the Frijoles Canyon at that
ent. Mr. Wright and Mr. Thompson were impressed with the opportunities
place from their standpoint, but the immediate cause of their visit,
planting of beaver in the Canyon, was laid on the table for a time and I
in the action. This was our first meeting with these gentlemen in
ficial way and I am willing to admit to you that my suspicion that they
their business was completely verified.

Mr. Vint and I went over general Southwestern Monument matters during
ternoon and night.

On the 21st I returned to the Petrified Forest and on the 22nd returned
headquarters at Casa Grande National Monument.

Mr. and Mrs. Bob Rose had left on an eastern trip on the 18th, so I had
uble in finding enough around the office to keep me busy until the end of
nth.

The summer rains came early in the northern part of my district, it
rained pretty well across northern Arizona and New Mexico before June 2o.
der cattle men claim that when the summer rains come so early the real rains
y and August are likely to fail and the grass will be short. All of which
s to be seen.

In the south, the weather has warmed up and we are having 108 and 109
common thing at the end of the month with 115 as the maximum so far this
and not likely to be exceeded as we generally have the hottest day of the
efore the 30th of June.

There seem to be a lot of cars on the roads through this district and
large percentage of them are new cars.

The La Fonda Hotel, in Santa Fe, had the air of being busy and claimed
having a pretty good season.

Gas stations claim to be doing fair business and I didn't see where
good ones had gone out of business lately.

Taking it bye and large, I should say the outlook was good for the
in the Southwestern District.

EL MORRO NATIONAL MONUMENT.

The place of honor at the head of the profession this month belongs to Mr. Vogt, who sent in the first monthly report. It is as follows:

"Dear Pink:

I am greatly relieved about two things. The summer rains have come and Alfred Peterson has arrived at El Morro and taken up his duties as summer ranger.

"The rains came none too soon for the parched ranges and the struggling condition of the live-stock. This, with the increased prices of wool, hides, pelts and cattle, have changed the temper of all in that business and has brought new hope as well. The Zunis and Navajos have sold their wool at around 15 cents, which is very much better than five or six cents per pound as last year while American growers have gotten sixteen to eighteen cents for their longer staple product and cleaner packed wool. I sold our own clip for twenty cents which, so far, is the highest price paid for wool in this region. The Indians have nearly all sheared, delivered and spent their money, while as to our own 11,000 head of sheep, they are now being sheared as fast as the daily rains permit us to proceed. The Mirabel and Pruitt, east and north of us, have not begun shearing except their dry stuff; ewes without lambs.

"Employment conditions are much better. I can see now that, owing to Mr. Collier's program of Indian employment being put on by Superintendents Stacher, Trotter and Hunter, that many of my Navajo and Zuni herders are going to leave me for the work offered by the Government. I am not trying to block their leaving me temporarily since they can make more money than by herding. I am sure they will be back in the fall when the aork is over.

"Travel has increased with a suddeness never witnessed in these parts. This is not just World's Fair and swift, main artery travel, but the woods are full of discerning people who are going out to Canyon de Chelly, Chaco, El Morro, Zuni, Ice Caves, Acoma, etc.

"Apparantly, during the long, hard years of depression there have been many people reading and longing to see what we have to offer and now, they and their friends, with eased conditions encouraging them, are making trips to see our high points of interest.

"At El Morro, Mr. Peterson reports as many as 40 people at one time which keeps him jumping to meet even a portion of them. We have this spring had an unusual amount of inquiries about our Monument and the roads and the travel conditions. All this indicates to me a big tourist year.

"Many of the National Park Service folks will be interested in the masterly article by Mr. A. W. Barth in the last issue of Art and Archaeology. His work in correcting the translations at El Morro is a real contribution. We hope he will return to clear up other cloudy points, but we hope he will not have to walk and hitch his way from San Diego as he did last fall. I would be willing to go or send my car 300 miles just to bring him in that far on his last leg of his journey if he plans to return.

"Other notable visitors during the last month was Clyde Kluckhohm and his wife and sister of Le Mars, Iowa. Mr. Kluckhohm will teach again at the Chaco Canyon summer school of archaeology and at Jemez. His new book, which many will want to read, is a follow up of his former book, now out of print, 'To the Foot of the Rainbow' His new book is called, 'Beyond the Rainbow.' It is said to treat more fully with the Navajo Mountain-Rainbow Bridge and Wild Horse Mesa Country than any book yet published.

"Mr. Peterson and I have had a conference on the problems at El Morro and he is now getting ready to put through the needed repairs, improvements, etc?

Sincerely, Evon Z. Vogt. "

We also have the following general letter and report from Mr. Peterson covering the month's operations:

"Dear Boss:

"I arrived on the third, - that is, I reached Ramah on that date without getting stuck in the sand near Zuni and was afraid something would be piled on the car before I got through. I shoveled enough sand to make an ordinary desert. There are several miles of newly graded road west of Zuni which I left at a point where practically all the traffic had left it, but the winds which have been prevalent for several weeks had drifted sand into the old road - and I got stuck. If I had stayed on the new grading I believe I would have gotten through o.k. although I hear that a month ago the new grading was being continnuously avoided because the old road was better. However, it does appear that there will soon be a good road all the way to Ramah from St. Johns. It was late when I reached Ramah and, since I knew the cabin at the Monument would be pretty well filled with cement, iron, gates, etc, and I would have to move out before I could move in, I did not attempt to anything more than to get supplies and arrange for mail, and then went on out to the Rock the next day.

"The screen door on the cabin had been broken but I think I can repair it as soon as I get a small piece of strap iron. The front window had been opened and the screen pulled off. This had been boarded over by Vogtie Brothers. Vogt some time ago. I soon had things looking normal again, but as I had worked hard for about 14 hours - and some of it darned hard labor, wasn't much good the next day. It was considerably different from studying cement is a lot heavier than books.

"My fancy bread and cake cabinet and flat irons are missing, along with the pencils, erasers, etc. Also some water glasses. I have darned little to cook with since some of my cooking utensils are also missing. I have a definite idea who was responsible for the disappearance of these things but doesn't matter."

Which is a pretty fair example of opening up a monument that has been closed to itself the greater part of a winter.

In another letter Mr. Peterson has the following to say of interest to the Educational Division:

"Yesterday among my visitors was the Governor of the Zuni Pueblo, Head Man of their ceremonials and a white man, a Mr. Vanderwagon, who interpreted for them. They were very desirous of securing two young black eagles which have not yet been able to leave their nest on a ledge on the north side of the Rock. They want the eagles to cage and raise for their feathers which they use in many of their ceremonials, and did not want to violate any law to obtain them. I have found the old eagles flying around to be of considerable interest and rather liked the idea of having the young ones here, but, no doubt, like the owls at Casa Grande, the youngsters would soon move to establish themselves elsewhere. Anyhow, I passed the buck along to Indian Vogt, and they left here with the intention of asking Mr. Vogt's permission to capture the eagles."

Here is another little local touch:

"Nearly every family for miles around Inscription Rock is getting their water from our cove. There has been no rain this spring, so I am told, and the constant drain on the water supply for both domestic and stock use has lowered the water in the cove to the point where it is not easy to dip up water without getting weeds."

This puts a point on that water supply item we are carrying for El Morro into the '35 estimates.

CHACO CANYON NATIONAL MONUMENT.

Mr. Julian comes in with the following good report:

"Dear Boss:

Another busy month has passed at the Chaco. Our 778 visitors came from sixteen states, Washington, D. C., Spain, Scotland and Germany, not to mention a party from Holland that registered from New York.

"We have filled our ditches and otherwise removed the evidence of the activity started in connection with the water system.

"What I personally consider the greatest single achievement since I have been at the Chaco has been the removal of the sheep from the Monument. We hope for great benefit to be derived from this action, providing of course we will be able to patrol the forty miles of boundary and keep them out.

"We note with pleasure that there are several visitors registered from the other units of the Park Service. There are four registrations from Mesa Verde, the Boss, Nancy Margaret and Addison from Coolidge, Mr. and Mrs. Fish and daughte from Casa Grande, the Farises from Aztec, and Mrs. Nusbaum and Deric from the Laboratory of Anthropology. Quite an imposing list from our own organization.

"Dr. Keur, of Long Island University, is at work upon the project which we refer to as that of the 'Threatening Rock', it is believed that something worth while will be the result of his investigations.

"Mrs. Keur, of the Department of Anthropology, of Hunter College, is busy as my first assistant on the University of New Mexico -- Park Service project which is concerned with the investigation of the 'Cliff Cysts' and which has been enlarged to include a petroglyphic survey of the whole canyon wall This is an ambitious program to be sure, but one that will be worth while even though it will take several years to complete. At least we will be able to record the petroglyphs that are on the walls now. Five hundred years hence this record will no doubt be very valuable in determining the authenticity of figures that exist at that time. Since the forgers and people who write names around in public places apparently will always be with us, this measure was deemed advisable.

"No report of the month's activity would be complete without mention being made of the completion of a project which has had all available attention during spare moments for some time. Reference is made to the office at this Monument. It is believed that I now have the oldest office in the Park Service. The room was originally constructed something like nine hundred or a thousand years ago. It was remodelled by placing a window and door in one wall, and we now have the office in which this is being written. Since there are between eight hundred and a thousand other similar rooms in the same building, perhaps the office space has not cut too deeply into the exhibitory resources of Pueblo Bonito.

"On June 9, Mrs. Walcott, of the Smithsonian Institution, was with us, and on the 12th Dr. Nordskog, of the Department of Anthropology, of the University of Southern California, had a party of embryonic Anthropologists and archaeologists at the Chaco.

The graduate school of archaeology of the University of New Mexico is swinging into action with their excavation at Chetro Ketl and every one seems to be having the time of his life."

Mr. Julian had finished the job of moving into his new office a few days before I visited him and he has an admirable little place, cool and comfortable to work in during the hot days of summer .

QUIVIRA NATIONAL MONUMENT.

Mr. Smith reports under date of June 20th as follows;

"For the month ending June 30, 1933, I have registered 350 visitors entered the Monument in 74 cars.

"Weather conditions have been favorable for the greater part of month although toward the end of the month we had some big rains which red travel to a certain extent.

"I was forced to suspend work on the repair of the Mission last week o the lack of funds. The work done has made a remarkable difference in ppearance of the Mission and has done no end of good in preserving the walls. are now in shape to weather the erosion for some time except in a few s we could not get to with the available funds. We were able to repair the entrance , the vestry and the refrectory before shortage of funds compelled suspend operations.

"Mr. Walter G. Attwell spent several days here at the Monument the of the month. Mr. Attwell was interested in the well we were having lled. He is also greatly interested in the preservation of the ruins and here he drew ground plans and studied the most studied the most economical to preserve the Mission.

"We were also pleased to have Dr. Mera and Mr. Stubbs from the ratory of Anthropology at Santa Fe visit us on Mr. Nusbaum's suggestion. Stubbs was preparing a drawing of this Monument and they expected to visit the other Indian pueblos in the surrounding country.

"Mr. Frank Pinkley and his son spent a few hours with us on the 16th.

"Mr. Huey, the contractor, has the well down 600 feet and the funds exhausted. Mr. Huey was expecting water at about 585 feet, but, as he to get it there, he thinks the next chance is at about 725 feet. He has wells to his credit in this country and he understands the formation he should be able to make a close estimate."

A few days later, Mr. Smith wrote again: "On June 21, between and six o'clock, we had a heavy rain here that damaged quite a bit of ty. The approach road to the Monument is pretty badly washed out and ttle guard is filled with dirt until it is of no more value; the cows g in over it. I suppose we will have to stretch wires across there and he travel up the old road and through the gate.

The water gathered in the altar end of the old church where the treasure r's shaft is, and caved off the ground between the wall of the shaft and ck of the Mission. The ground there has sunk some four or five feet and the back wall of the Mission in a bad way. There was another little cave vestry of the new church that gave way and the ground sunk in about feet. We will take care of that but the treasure seeker's shaft we will to them as they might want to hold us responsible if we work around it.

"I am sending a letter to Mr. Hanna, lawyer for the treasure hunters, this."

I might say, in closing up the well matter in this report, that we Mr. Smith and Mr. Huey that the funds were exhausted and to move the rig clean up the location according to the contract. It is too bad we did ike water but we went on the best information available and found that the simply was not where it ought to be. We will probably ask to include an deepen this well in the first deficiency bill of the next Congress. The left in such shape that Mr. Huey says he will have no trouble in going on th it.

MONTEZUMA CASTLE NATIONAL MONUMENT.

I have the following report from Mr. Jackson, under date of June 26th:

"Dear Pink:

"Have had a very good month at this monument, with 1448 visitors by actual count, which is 72 less than we had in June 1932, or a loss of about five per cent. Bya careful check on the register book I find that we are having more visitors on week days than last year but the Sunday crowds are off as compared with last year. This reduction in Sunday visitors was expected when the lower grounds were shut off to vehicular traffic. And another reason is that due to a killing frost here about the middle of May left our trees with but very few leaves so we are going through the summer with a very sparse shade.

"Chief Landscaper, Tom Vint, accompanied by Mrs. Vint, paid us a short visit during the month. Of course we enjoyed the visit and meeting Mrs. Vint, and at times I think that Tom is a landscaper after all.

"On the tenth of the month a part of the sixth and seventh grades from the training school of the State Teacher'w College at Flagstaff paid us a visit. They were a well behaved bunch of youngsters and we were glad to have them with us. Miss Jacobs, one of the teachers, was in charge of the party.

"On the 17th of the month 119 boys from the Reforestation camp at Mormon Lake were in to see the Castle. And to read of 119 people visiting a place in one party doesn't mean anything, but in this case it meant quite a lot. To us it meant ten extra trips through the Castle and Museum over and above the regular run of visitors, which is at present about fifty per day, but by calling on Mr. Hare, the extra ranger who lives near-by, we got them through in good shape, and most of them seemed highly pleased with our Castle. The party was in charge of Lieutenant Browning of the Regular Army, and he certainly has his boys well in hand. He told us that he would recommend that the several other camps located in northern Arizona bring their boys over to see the Monument and of course we thanked him for his interest but at the same time we were wondering how we would be able to handle them after the first of the fiscal year, when I believe you said that there would not be any funds for an extra ranger?

Regards to the Bunch,"

I am not sure Mr. Jackson is correct in his theory that his Sunday visitors have fallen off because they are not allowed to drive their cars down on the old picnic grounds under the Castle. At least his theory cannot be applied at Casa Grande where we also show a falling off of Sunday traffic as against previous years. The Arizona gasoline sales tax has fallen off and the number of cars registered in Arizona has fallen off. This would indicate that, where a sunday peak of local Arizona people occurs, as at Casa Grande and Montezuma Castle, there are not so many Arizona cars this year and the owners are not burning so much gasoline making Sunday excursions as in former years. The Petrified Forest has no Sunday peak but is showing a slight increase over last year after proper weighting of the figures. This indicates that out-of-state travel is reaching the Castle and the Casa Grande in larger numbers than last year and this checks with Mr. Jackson's statement that he has more week day visitors than last year. The same thing is true at Casa Grande and we noticed it last winter.

SPRING NATIONAL MONUMENT.

Mr. Heaton has the following report under date of May 26:

"It is time for another report to be off to you from the Pipe Spring nal Monument.

"The visitors this month have been about the same as last month, 145. Among the visitors were Ranger Parker from Zion, Joseph S. of the N.P.S., Messrs. Thompsom and Wright of the Wild Life Division, enzie of the Indian Bureau and Dr. Farrow, also of the Indian Bureau.

"I have had a total of 43 campers this month, the most I have had last fall. Some of these were cowboys doing their spring branding.

"Now that summer has come it seems to have come from southern Arizona, so hot and dry, also a lot of hot winds which burn up the vegetation ying up most of the water holes on the desert driving the cattle and live stock to the permanent watering places. I thin we now have about head of cattle watering here at Pipe Spring and if we do not have before long there will be a lot more.

"Most of the birds have gone on north to the cool mountains, leaving those that have made their nests here. We have plenty of snakes and s around the place. I am collecting some of them and placing them in

"The water question is still on the firing lines and it appears that g as it is left up to Dr. Farrow and myself it will not be settled cannot seem to get together on just what water belongs to the Mon- and what is surplus.

"The cattle men met Mr. Linzie and Dr. Farrow here on May 30 to their water problems and on May 31 Mr. Parker, of Zion and Mr. and Dr. Farrow came to discuss the Monument water question and about half an hour. I was not very well pleased with the visit, on receiving Mr. Cammerer's letter of May 26 I called Mr. Parker ranged to meet him and Sup't Patraw in Zion June 2, which I reported Park Serviceon June 5. To date I have not had word as to what is done or as to what arrangements have been made. I have, however, head and used the water as I stated in the letter to the Indian ment and I intend to continue to do so until I have further orders.?

I don't know why the Indian Service officials seem bent on getting ter of Pipe Spring away from us and drying out the Monument. They show prior usage by the local Indians and they don't seem to claim able to do so. Theyseem to base their claim on some rights given in the proclamation. The very fact that they wrote those words the proclamation is proof that they had no valid claim on any specific t of water or they would have stated the amount they claimed. They it to the regulations of the Secretary and now they are trying to take ing like four-fifths of the water. How do they get that way?

PULIN MOUNTAIN NATIONAL MONUMENT.

"I have the following report to make as to the activities of Capulin in National Monument during the month of June.

"A little over eight hundred and fifty visitors visited the Monument g this month. All roads to the monument have been in good condition mmer and with recent rains pretty well all over this part of the

State makes the Monument very beautiful at this time.

"Next week I expect to begin removing the slide from the road. At present the road is passable and, while we have kept it passable for the past year, it is not so perfect as it should be for the summer travel.

"I also expect to make a trail around the rim this summer which, in my estimation is very much needed. Most of our visitors enjoy a walk around the rim where in looking inward they can view the crater and , looking outward they can see Kansas, Oklahoma, Colorado, Texas and New Mexico. At times when the air is extremely clear one can see Pike's Peak, Colorado, over two hundred miles away."

BANDELIER NATIONAL MONUMENT.

"Dear Boss:

"For the month ending June 25, we have had 601 visitors. Some much needed rains the last half of the month seemed to cut travel down a little. The first rain came the 13th and from then until the 24th it rained or was cloudy and threatening every day. The rains seemed to be pretty general throughout this section. I am glad to see the forest soaked again as it relieves the fire hazzard considerably.

"Mr. McCament, District Ranger, tells me we had a fire at Upper Crossing on May 27 which burned about a quarter of an acre. It was handled by the Forest Service using men from the C.C.C. camp. Another one, not formerly reported, occurred April 8th in Alamo Canyon and burned one eighth of an acre.

"A very hard hail occurred Friday evening, June 23. Much of it was one-half inch in diameter. It made many more leaks in our old roof. It was hardest up the Canyon and collected in such piles at the foot of the slopes so that there was still hail in places below the Ceremonial Cave Saturday afternoon

"I received the mimeographed information sheets and have placed some at the Chamber of Commerce and other strategic points in Santa Fe. The tags for the nature and guided trails were also received and some of them have been placed. These few seem to have created some favorable interest. I don't seem to have as much time as I would like, but expect to get many more up next week.. Since one Ranger can never be every where with every body the object is to have the tags explain and call attention to the interesting features that might otherwise be missed.. I will use them first along the ruins trails and will include plants, shrubs, and woods used by the old people. Later on we can develop a pure nature trail.

"The Boss was in to see us during the month. Mrs. Chas J. Smith, George Wright and Ben Thompson were also visitors. It is also rumored that Mr. and Mrs. Tom Vint looked over the rim of the Canyon.

"A group of students from the Texas Institute of Technology, at Lubbock, visited the Monument on the 18th. This group, under the supervision of Dr. Holden, is excavating a ruin between Pecos and Glorietta.

"A group from the University of New Mexico summer school was in Saturday, the 24th.

"We also had two pack outfits from dude ranches.

Edgar Rogers.
Ranger in Charge."

L BRIDGES NATIONAL MONUMENT.

Zeke comes in with the following good report under date of June 27:

"Dear Frank:

I see it is about report time again so here goes. This has e coolest June I ever saw in this country; very few hot days and there n a very fine lot of people visiting the Monument, all going away eased. The roads are as good as they ever were and there has been rain to keep fresh water in the pools. I never saw more grass and s than there are here at present.

"Mr. and Mrs. George McCord spent four days with me at the Bridges. s to know everybody in the Park Service.

"Three days ago two young men from California walked over to the Augusta and back, I hiked over with another party from Pittsburgh Pa. We the trail and the young men told me they sure loved the country. I hem to come again and they said they sure would. When I got over Augusta I found their names scratched on the rocks in two places so ed back to camp, jumped in my car and caught them at Blanding this . They went back to take off their names. They hesitated and with me all day yesterday but this morning they went back. I eck up on them soon. Now Frank, this Floyd Dalton case has never sposed of and he has defied me and many people here are watching the e. If he wins out and is not compelled to go out and erase his name be hard for me to keep others from desecrating the Monument so I ious to know what to do with him. Will you please write him or me and just how to proceed. He must be brought to time.

A letter recently from the Director said that he thought he could out a little money for the Bridges and that I would be hearing from , but as yet, no word has come. It was published in the Salt Lake that there had been $12,000 set aside for the Natural Bridges. My! ch money would scare me to death! But I am still hoping for something.

I am leaving here at three a.m. tomorrow for Salt Lake City and will k June 30 with Mrs. Johnson. She will stay two or three months . Junior will take care of all the visitors while I am away."

The funny thing is that Zeke will have to make good; there is $12,000 list for him, and, barring accidents, he will have to worry around tch it being spent. Won't that hurt his feelings?

ACORI NATIONAL MONUMENT.

I heard from Mr. Boundey of Tumacacori on the 28th as follows:

"For the first time since I have been in the Service I forgot the ly report.

We have had 836 visitors for the month.

We have been having some very warm days and yet the visitors have been interested kind. A Miss Saunders, feature writer for the San o News, visited us via airplane and I am very sorry to say was over- y the heat. We brought her to the house and she spent part of the on with us. She said she enjoyed the visit in spite of the heat.

Martin Evenstad spent a day or two with us installing Flamo and the Ranger quarters in shape for occupancy. We also tried out the ting system which is very satisfactory.

"A Say's Flycatcher which has occupied the same nest in the Sacristy of the Mission for the past eleven years that we know of has raised her second brood for this year and is getting the nest in shape for a third. There isn't any shortage of insects with her and she doesn't appear to notice the depression at all.

"On two sides of the Mission grounds they have been harvesting wheat with the hand sickle and threshing it out by driving the horses round and round over the straw. One of these is a Maya and the other an Opita Indian.

"Many cattle are dying in this vicinity due to the scarcity of water. San Juan's Day was ushered in with two days and nights of intense celebration. No one got any sleep in this neighborhood and still the rains have not arrived. We will have to start watering the trees very soon and as there is no wind to turn the mill, I will have to start up the engine. The Indians are forced to draw water for their cattle by hand as an average Indian wind mill hasn't any hand pump."

It is quite characteristic of Mr. Boundey that he hasn't anything to say about himself. As a matter of fact he is getting better after his stomach operation and we sincerely hope will soon be strong again.

REPORT OF THE ASSISTANT SUPERINTENDENT.

"As Superintendent Pinkley indicated in the 'last minute flash' in last month's report, On June 1st I took unto myself a new boss. This was sufficient reason for taking a few days of my allowable furlough.

"Returning to Cookidge June 5th, I found a great deal of desk work which had accumulated in my absence during May on the field trip with Dr. C.P.Russell, Field Naturalist.

"On June 9th Sup't. Pinkley left Coolidge on a field trip from which he returned on the 22nd. During his absence I attended to the routine matters about the office. In addition to these duties I spent about five days completing the Justifications for Individual Projects on the Six Year Development Program. These were completed with the exception of some four or five items dealing with Monuments I have not yet visited.

"On Wednesday. June 12, in connection with a trip to Phoenix on personal business, I visited the Library of the Arizona State Teacher's College at Tempe. This visit was made with the express purpose of learning the best method of cataloguing the books of our library at Coolidge. While at the College Library Mr. Cookson, The Librarian, gave very generously of his time to acquaint me with the Dewey Decimal System of Library Cataloguing. Upon arrival home from this trip, I found a circular in the mail awaiting my return in which a National Park Service Library Committee had approved the use of the Dewey System for National Park Service libraries.

"Mr. Cookson explained to me that upon submitting a list of our books by authors to the Library of Congress, standard Library of Congress catalogue cards could probably be obtained for all of our copyrighted works and more prominent periodicals. These cards contain all the necessary cross references by subjects and titles by which a librarian might wish to arrange a card catalogue.

"Seeing the advantage in adopting this standardized catalogue system

WITH THE ASSISTANCE OF THE NEW "MRS.", I prepared a list of our library books and periodicals; the books by authors and publishers and the periodicals ~~by~~ and bulletins by titles and publishers. Upon receipt of these cards they can be arranged in the card file boxes to form the catalogue by authors. As many duplicate cards as are needed will be secured for arranging a catalogue by titles of articles and subjects.

Letters from home as far back as May 25th indicated that Father had been and was in poor state of health. About June 15th a letter reached me stating that he had pulled through a rather critical period but that the doctor's advises as to his condition were not very incouraging. This prompted me to make a hurried trip to Southern Indiana. I left Coolidge the morning of June 18th and expect to return to Coolidge about July 6th of 7th.

Following the activities of the month which included the making out of the library book list, the completing of a small volume of justificationa, handling of office routing in Mr. Pinkley's absence and the last and not least-getting married on June 1st, it appears that personally June has been a fairly prosperous month.

Aztec Ruins National Monument

Mr. Faris reports as follows under date of June 27th-1933:

Dear Boss:

Visitors for the month total 931. This figure is less than June of last year by 210. We have no doubt but that the World's Fair is cutting into our visitors from the middle west and east. Our reguster shows a dedided drop of visitors from those states.

Several parties of special interest have visited our ruin and each have expressed surprise and wonder that our ruin is so little known and yet so interesting. A chec' was made with the camp grounds and hotels in surroundin points for suggestions and complaints that the visitor may have left with them and in several places visited only two complaints were found and they were not anything that the Park Service had anything to do with, so they will have to go on. Both were minor complaints however.

It has been our pleasure to have several of our visitors remark about the efficient and capable men in charge of our Department in Washington D. C. We personally vouch for such in our Director and it is hoped that our Secretary can make our Monument a visit that we may have the pleasure of meeting him and contact the vigor and enthusiasm that is reflected by his actions in office.

Mention should be made of the San Francisco office. Those boys have certainly been on the job. We received a Master Plan of the Aztec Ruins that is a peach. A test was received from there on our water in record time. The letters etc on wall preservation were most interesting and while I am not convinced that such treatment will remedy our problem heree, I am most sincerely hoping a remedy can be found. Anyway we want to transfer a big thanks to the Frisco office for all they have done.

We are sure going to take Bob Rose to task for ~~not~~ missing us in his report for last month. He spoke of museums and did not even mention the best one of the lot. I guess I will have to sell this place to Mrs. Rose and then we will get Bob to do better by us.

Congratulations to Julian on the poem. I hope that he gets more.

And still more reports come in from El Morro. Ranger Peterson send in the following additional information under date of June 27th.

Dear Boss:

The letter I wrote you shortly after arriving at this station, in which I stated that it looked as though we would have our share of visitors was prompted by the fact that roads were in as good condition as they ever are and travel was picking up. However, summer rains paid us an early visit commencing on June 13th and travel fell off sharply. During the past four or five days we have had no rain and people are again venturing out on our dry weather roads, but clouds are gathering over the Zuni mountains again this afternoon and may bring more rain.

During the first 26 days of June and up to the present hour of the 27th there has been a total of 412 people at El Morro. Of this number 146 came here to obtain water from the cove; and, because of a dry spring, there has been an unusually large number of water haulers-- hauling water both for domestic use and for cattle. In other words, they were attracted by the same feature that probably was the chief attraction to the early Spanish explorers and colonists, as well as the prehistoric inhabitants of the ruined pueblos of El Morro. Deducting the water haulers leaves 266 people whose names should appear on the register, but as amatter of fact there were but 160 names written there during the month. Occasionally some visitors can not write their names, such as Indians and Mexicans, althoughthey prove to be interested visitors; and then there are those who do not want to register anywhere but on the Rock alongside of the old Spanish inscriptions. Incidentally, we should have a small shelter house, even though it be a temporary arrangement, to house the register. This would aid in getting more people to register and in obtaining a more accurate count of visitors. The registrations show that for the current month people from 18 states, Washington D.C. and Switzerland were present and accounted for.

Among the visitors were two doctors from Oakland or San Francisco with a party of six, one of whom mentioned, as they were leaving, that he had a letter of introduction from the Director and expressed keen interest and regret that they could not spend more time at El Morro. I would tell you their names but, as is usual with a doctor's signature on a prescription, I am unable to read the names on the register. On the 24th Mr. S. F. Stacher, Indian Agent from Crownpoint, N. M., brought in a large party, and on the 11th Colonel and Mrs. S. W. Anding, of Sante Fe, were here with Mrs. T. Willis Goodwin, of the Laboratory of Anthropology. Mrs. Goodwin had her hands full of little sacks for the purpose of making collections of potsherds from our several ruins. Just as this report was going"to press" Mr. and Mrs. W. W. Winton, Fort Worth Texas, drove in. They are both Professors in the Texas Chriastian University, teaching geology and botany. This is their third visit and they always stay several days or a week, and tonight they have invited me to "dinner" to be followed by a private movie show.

Just as a matter of curiousity and not to be considered as mention of a person of importance, I find under date of May 30th the name "Pretty Boy Floyd", "210 Oak Lawn, Okemah, Okla.", on the register and am wondering if that notorious gangster actually visited our Rock Album, or if some child or childish individual signed his name; have noticed his name several times recently in news articles and one editorial.

Upon arriving at this station I found one new "inscription". It is the name of Lt. Lamar Shaw, Miami, Arizona, under date of May 23rd,1933. When Colonel Anding saw the name of a Lieutenant he immediately said he would check over his lists and see who this man was. Lt. Shaw has been cordially invited to, return and remove his name.

About the translation signs, I shall have more to say about them next month. I have found it necessary to make some improvements to guard against warping and checking of the wood used in their making and thus prevent sudden showers getting in after a dry spell. The improvements are such as I should have seen were necessary in the first place, both for the purpose of making them watertight and improving the appearance.

While endeavoring to follow the boundary lines of the Monument to ascertain the amount of fence required to cross the canyon, in accordance with Mr. Vogt's suggestion, I ran onto a group of fine Indian pictographs on the north side of the mesa, that were new to me, and also found in the canyon a boulder under a ledge that had a number of grinding grooves of prehistoric origin- not the usual deep axe-grinding grooves, but shallow eliptic grooves- and a boulder had fallen from above and partly covered some of the grooves. This boulder was overgrown with lichens.

On the north side of the Rock there was an eagles nest with two young ones. The Governor of the Zuni Indian Pueblo and their head ceremonial man, with an interpreter, asked permission to take the young eagles, cage them, and raise them for feathers to be used in ceremonies, their rain dances, etc. I passed the buck to Mr. Vogt for permission to do this. They failed to see Mr. Vogt and returned a few days later with two more Indians looking for other eagles in this neighborhood. I don't know whether or not the young eagles were ready to leave their nest of their own accord, but at any rate the eagles disappeared that day from the rock and haven't been seen since.

A family of flycatchers have their nest in my "garage" and it has four eggs in it to date. They are gradually getting used to having me around, but they are still quite timid.

To be continued in our next. I have had frequent and protracted interruptions during the writing of this.

CASA GRANDE NATIONAL MONUMENT.

And last but not least Mr. Palmer comes out of the shade of a mesquite tree where the thermometer is registering 110 and reports as follows:

Dear Mr. Pinkley:

For the month of June I have 1272 visitors to report coming in 401 cars an average of slightly over 3 visitors per car. This is a small increase over the same month of last year. 737 of the total in 235 cars were from Arizona, the balance coming from 31 other states, Washington D. C. and four foreign countries, French Indo China, the Phillipine Islands, Ireland and Germany.

1143 of these visitors were personally conducted through the ruins of Compound A on 184 tours and 173 lectures were delivered in the museum. 129 of the total of 1272 received no service, being people who just drove in, took a look and drove out again.

June being one of the hottest months of the year, is also one of the lightest in attendance. However, this year they have been an exceptionally interested lot. Many of our out of state visitors have been on their way to

the Century of Progress and included Casa Grande in their itinerary.

Ranger Frank L. Fish was on furlough and annual leave during the entire month and the visitors were handled efficiently by Francis Seagoe, who was a Ranger here several years ago.

Seventy of these visitors took advantage of the conveniences of our picnic area and two parties of three each remained over night on the camp ground. This is avery small percentage of visitors using our picnic grounds but with the thermometer ranging from 100 to 110 for the entire month it is not surprising that people took their lunches to the mountains where they could mix cool air with their sandwiches and 3 point 2.

The weather has been seasonable, dry and hot. There was .02 inches of precipitation. The mean temperature (maximum) was 104.5 and the mean minimum 63.1 making the mean temperature for the month 83.8. The maximum was 115 degrees on the 11th and 12th and the minimum 49 on the 6th. Greatest daily range was 55 on the 11th. There were 19 clear days, 10 partly cloudy and one cloudy.

The month has been spent in getting many odd jobs done that have been hanging fire to see if funds would permit. With small balances like we operate on it is always necessary to conserve some funds until the last minute for fear that an emergency might arise that they might be required for. If these emergencies do not arise it leaves many necessary repairs for the last month.

The surface gravel was swept from the parking area and parking stripes painted thereon; the grounds have been thoroughly cleaned of accumalated debris from trees and bushes; the shoulders of the entrance and service road were surfaced with the gravel removed from the parking area; railings were erected around the residential parking area to prohibit driving all over the grounds; minor repairs to buildings and ruins were completed and motors were overhauled and put in first class condition. Contracts for wood and liquified petroleum gas for operation of quarters were entered into.

The new entrance sign was received and erected during the month. It is a silhouette of the Casa Grande and is made from copper and reads from both sides. It was designed by the Branch of Plans and Designs and made in San Francisco and is a beauty and has already excited much favorable comment from visiotrs and local residents. Signs have been placed on the boundary line on each side of the entrance directing travel to the gateway. Anyone passing up or down Highway 87 who doesn't knowthat he is passing the Casa Grande National Monument must be blind.

I attended a road meeting in Tucson on the 3rd with a delegation from Coolidge at which a resolution was passed asking that U. S. Highway 80 be changed from it's present route to the road passing the Monument. Highway 80 is one of the most popular transcontinental routes and if it is changed to pass our entrance it will mean a large increase in visitors to the Monument. Highway 80 now runs about ten miles east through Florence.

I had hoped during the month to carry out the test of PeneTex on the walls of Compound A. The plan was submitted to the Branch of Engineering who in turn sent it on to Chief Engineer Kittredge for comment and approval; but from all reports Mr. Kittredge has had more work than one man could conveniently attend to no matter how competent he is in connection with reforestation and the public works program and I did not receive his approval, so the test

will have to be carried out at a later date. This ruin wall protection is a mighty important matter and I was mighty glad to see in the tentative setup of the Public Works Program that $5,000.00 for repair work.

We are going into the new fiscal year with all work up to date and everything in good shape.

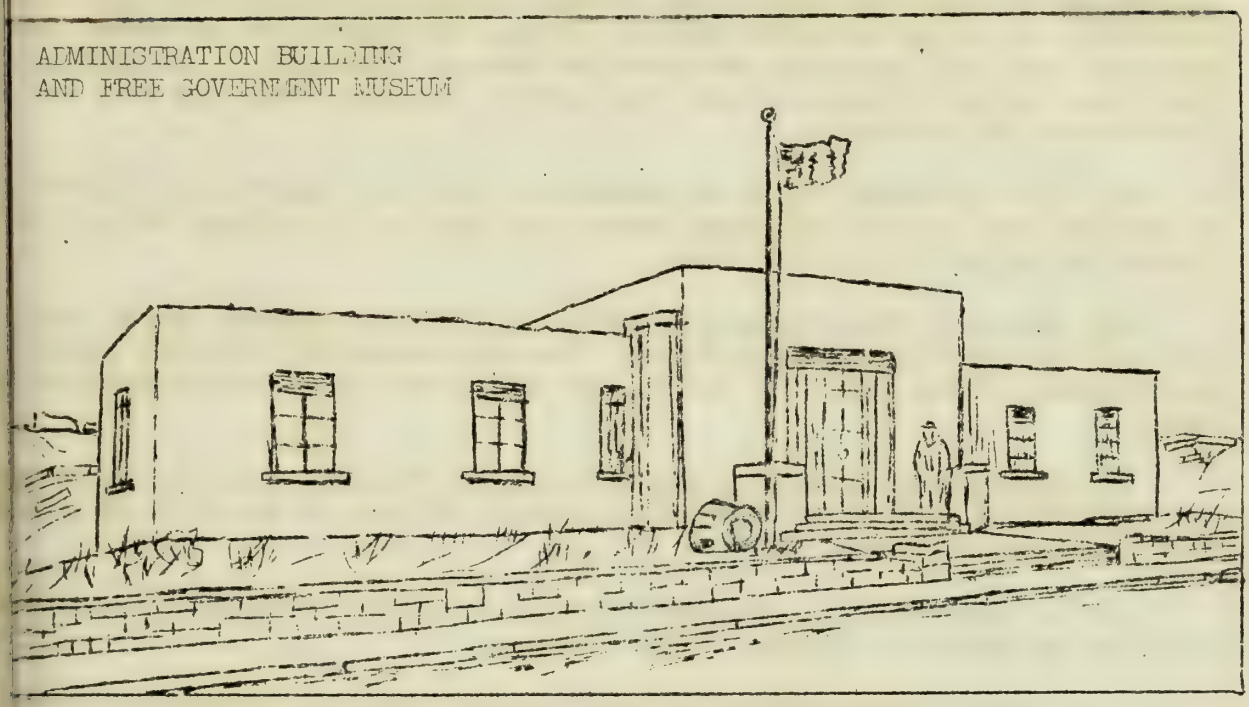
Thus Chief endeth the chronicle of the happenings in Southwestern Monuments for the month of June. Nothing startling has taken place. Everyone is on their toes and ready to take care of all the visitors who will visit their Monuments during the coming months and after all is said and done that is our most important job.

Cordially yours

Frank Pinkley

Superintendent

U. S. DEPARTMENT OF THE INTERIOR - NATIONAL PARK SERVICE



Petrified Forest National Monument, Holbrook, Arizona

JUL 1 1933

The Director
National Park Service,
Washington, D. C.

Dear Mr. Director:

The following report on the Petrified Forest National Monument for the month of June, 1933, is submitted.

Conditions in general in the Petrified Forest are good. The weather report shows that a new record was established for the Monument on the 12th, when the temperature reached 99 degrees for a new high for the last three years. Low for the month was 42 on the 1st. There was more rain than usual for June. Precipitation was as follows: on the 7th, trace; 13th, trace; 14th, .07 of an inch; 15th, trace; 16th, trace; 18th, trace; 21st, .03 of an inch; 22nd, .10 of an inch. There were 22 clear days, and 8 partly cloudy days. The last five days of the month have brought strong winds with temperatures ranging around 95 degrees maximum during the day, but the nights are very cool and refreshing.

Work has been kept up to date as far as possible in the Monument, with everyone performing his duties satisfactorily. The road is in fair condition due to the recent showers, as are the approach highways to the Monument.

The Superintendent has inspected the Monument periodically and found everything in first class shape.

Mr. Frank Pinkley, Superintendent of the Southwestern National Monume arrived at the Petrified Forest on the 9th, stopping over for the night be continuing on to the monuments farther north. He returned on the 17th, sp two days here, and proceeded to Bandelier National Monument on the morning the 19th. On his return he spent the night of the 21st here, and left for headquarters on the 22nd.

Mr. Earl A. Trager, N. P. S. Geologist, paid us a short visit, arrivi on the 8th, and leaving for Grand Canyon the night of the 11th. He visite Canyon De Chelley during this time.

Mr. Thomas C. Vint, Chief Architect, and his wife arrived on the 13th and left the next day for Mesa Verde. They were accompanied by Mr. Wright Mr. Thompson of the Wild Life Survey, who were here investigating the ante range.

The Superintendent made an official trip to Phoenix, Arizona, to disc road matters with the Bureau of Public Roads. He left on the 18th and ret the morning of the 20th.

Due to lack of funds, all road work was discontinued and per diem emp ees laid off about the middle of the month.

A new long carriage typewriter was received from the Washington offic on the first day of the month, and has proven to be an invaluable asset to our office equipment.

The Master Plan for the Petrified Forest was received from the Branch Plans and Design during the month. It was studied with great interest and a fine and valuable piece of work.

The mimeographed bulletins describing the trip through the Monument, a given to each car entering, and many complimentary remarks have been recei from appreciative tourists on the information they give about the points o interest. It is planned to use these pamphlets from now on because of the help they are to the traveling public.

The Checking Station tent at 260 Junction which burned down, has been replaced by transfer of surplus stock from the Bureau of Public Roads and t rangers on duty there now have some protection from the sun and elements.

The ranger's quarters at Agate Bridge were repaired and painted inside The bedroom had never been completed and rain coming in had ruined the plas ter, requiring extensive repairs to that room. It is now habitable and the ranger stationed there is highly pleased with the improvement.

Last month we reported that considerable rock protection work was done on the island north of the Rio Puerco Bridge. We had one man available for this work with tractor and stone boat. In order to complete this work befo high water, 6 men were furnished by the R. F. C. Committee of Apache County for about three weeks. This month for the period up to the 17th the same arrangement was made whereby the Painted Desert Rim road east of the Painte Desert Inn was put in fine shape.

The flowering plants of last month are now being replaced in spots by the Primrose, Yucca, Ground Pea, and especially the Cacti group. The Prickly Pear, Echino Cactus and Barrel Cactus have blossomed profusely.

Automobiles accounted for two animal accidents last month. An unlucky Peromyscus (white footed mouse) ventured into the headquarters parking ground one evening and was run over, and a ground squirrel was hit and killed near the Agate Bridge.

An examination of the water hole on the boundary line northwest of the Rainbow Forest revealed a number of dead salamanders (Ambystoma). Killdeers are nesting near the water hole which has been a haven for cattle the last two months.

A pair of horned larks have a nest not far from the Museum and are making regular visits to the back doors of the rangers' quarters for bits of food. Rock wrens are quite at home just back of the Museum, one even venturing to inspect the exhibit in the building. One look was evidently enough, for he has not returned since. A family of wrens have their home in a hollow petrified log near the back door. The parents made a big fuss the other night when they discovered their five offspring on the point of entering the Museum.

Besides the regular run of snakes and lizards, a new caller was a Toad (probably Bufo punctatus), who registered at the Rainbow Forest Lodge. A water drip at an outside faucet was apparently the attraction.

Travel for the month of June through the Monument is as follows:

For the month, Petrified Forest section,	cars	4,013	people	12,917
Previously reported	"	9,545	"	27,831
Total to date	"	13,558	"	40,748
For the month, Painted Desert section,	"	7,947	"	28,377
Previously reported	"	14,223	"	44,620
Total to date	"	22,170	"	72,997
Grand Total for June	"	11,960	"	41,294
Grand Total to date	"	35,728	"	113,745

Last year grand total same date, 43,628 people.

All the states and the District of Columbia were represented during June, as well as the Canal Zone and the Territory of Hawaii. Residents of foreign countries registered from Brazil, Canada, China, Czechoslavokia, England, France, Germany, Holland, India, Italy, Mexico, Poland, Scotland, South Africa and Switzerland.

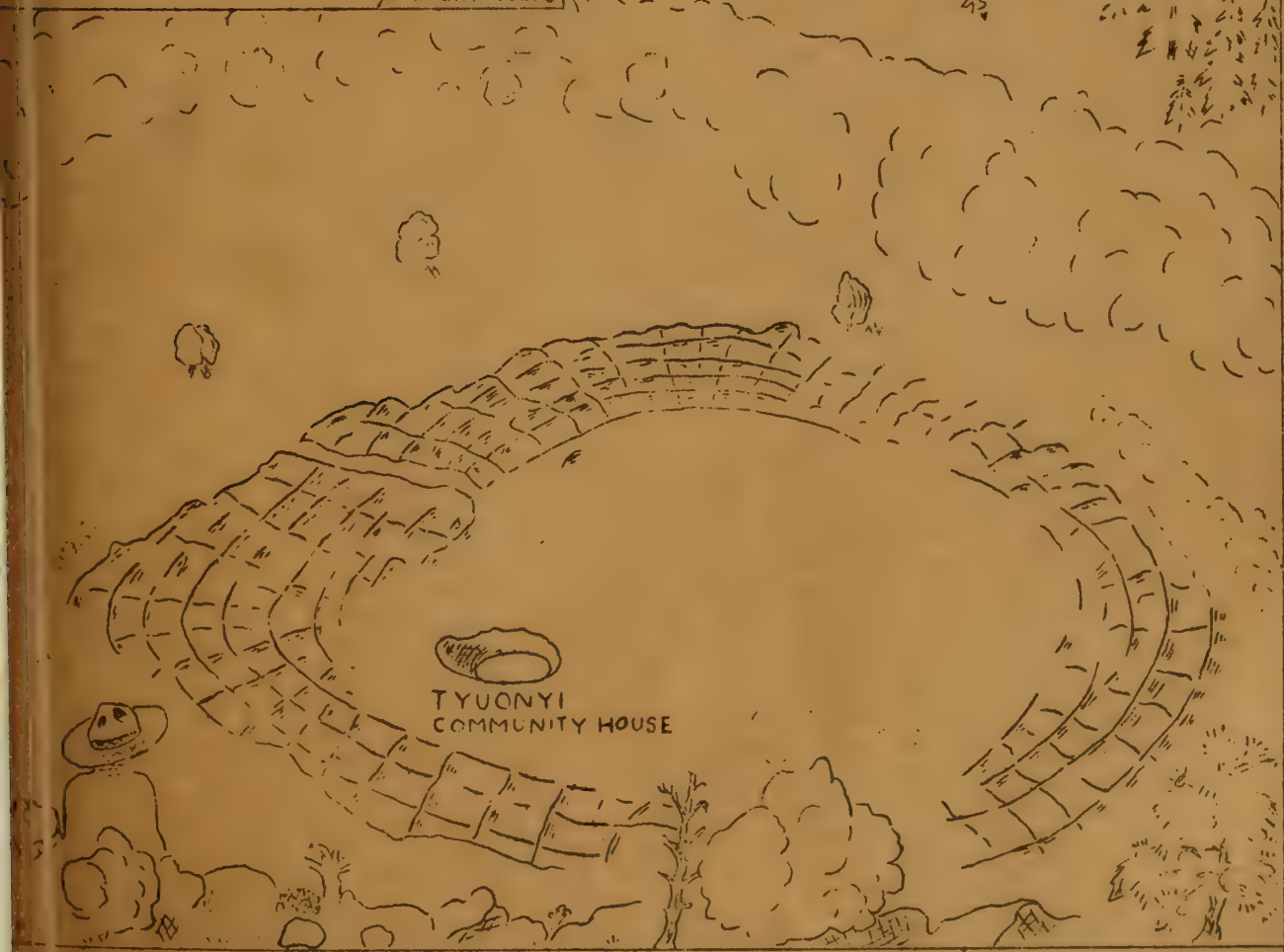
Respectfully submitted,

Chas. J. Smith

Chas. J. Smith,
Superintendent.

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

BANDELIER NATIONAL MONUMENT is located in the Pajarito plateau region in north central New Mexico. This area was set aside to preserve many features of archaeological interest in a rare setting of scenic beauty. Hundreds of ruins, large and small, dot the monument. Headquarters are in Frijoles Canyon, 42 miles west of Santa Fe. This is a picturesque canyon about 600 feet deep, carved in buff colored volcanic tuff or ash by the little mountain stream below. A foot trail 5/8 mi. in length leads into the canyon from the parking ground on the rim. The Monument was created by presidential proclimation dated Feb. 11 1916, and placed under the jurisdiction of the U. S. Forest Service. Later proclimation of February 25, 1932 transferred it to the National Park Service for administration. At the same time the area was increased from 22,075 acres to 26,026.2 acres.



DEPARTMENT OF THE INTERIOR NATIONAL PARK SE

SOUTHWESTERN MONUMENTS

The most interesting and accessible features of BANDELIER NATIONAL MONUM are the ruins in Frijoles canyon. Cliff ruins or talus villages extend along the base of the northern cliff for approximately two miles. These houses of masc were irregularly terraced from one to three stories in height and had many ro dug out of the solid cliff which is of soft volcanic ash or tuff and was work with stone tools. The masonry portion is in ruins, but in the cliff behind a revealed more man made cave rooms than are to be found in any other place in Southwest. This, and the fact that the ruins are located in a beautiful and verdant canyon, set them apart from others.

There is also the ruined pueblo of Tuyonyi on the floor of the canyon. It is a structure of nearly circular plan and is the first ruin seen by visit coming down the trail.

The tree ring chronology and correlations of pottery indicate these villages flourished during the century of the discovery of America. Although unmentioned in Spanish chronicles, they were still inhabited in 1540, when Coronado came into New Mexico, and well into the next century. Tradition als says they were reoccupied after the pueblo revolt of 1680.

Evidence indicates these people were related to the Keres pueblos of tod That is, to the Cochiti, Santo Domingo, San Felipe, Santa Ana, Zia, Laguna, and Acoma, who all speak the same language.

Like the pueblos and cliff dwellers. generally, the ancient Frijoles inhabitants were farmers. And like them they grew corn, beans, and squash. Cotton cloth is also found indicating that they had cotton and understood the use of the loom. Since the growing season is short, cotton may have been obtained by trade. Pottery with a glaze decoration was made.

The exact cause of abandonment is not known. It is probable that pressu from raiding Navajos combined with adverse economic conditions reduced their numbers and caused those remaining to drift out in small bands or clan groups and join different pueblos of Keres stock. The abandonment must have been gradual.

The monument is named in honor of Adolph Bandelier, the ethnologist who explored and wrote of the canyon in the eighties of the past century. He, in company with Charles F. Lummis, spent several seasons here. His book, "The Delight Makers", should be read by every interested visitor. It is an ethnohistorical novel giving a picture of prehistoric pueblo life. El Rito de los Frijoles (The Little River of the Beans) is the setting.

Visitors are asked not to write on walls, take souvenirs, pick flowers, or disturb anything whatsoever. THOUSANDS OF OTHERS WILL VISIT THE MONUMENT AFTER YOU. LEAVE IT UNIMPAIRED FOR THEM.

A National Park Ranger is on duty from 8 A. M. to 5 P. M. during the summer months to show visitors the ruins and explain features of interest.

BANDELIER NATIONAL MONUMENT is administered by the Superintendent of Southwestern Monuments, Coolidge, Arizona.

Hotel accomodations are provided by Frijoles Canyon Ranch. Meals and lunches are served. Horses may be hired.

BE CAREFUL WITH FIRE!

THE JUNE SUPPLEMENT
TO THE
MONTHLY REPORT OF THE
SOUTHWESTERN MONUMENTS
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In which will be found the odds and ends of the events of the month which are more or less worthy of preservation.
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SOME MORE PURE RESEARCH.

The National Lime Association has recently come to our aid in the matter of the material used by the ancient people in the erection of the prehistoric ruins at our Casa Grande National Monument. A letter from the Chief Chemist follows:

"We have finally completed our analyses of the plaster samples forwarded by you from the Casa Grande Ruins. We regret that, due to the business conditions and the consequent reduction in laboratory staff, we have been unable to give you these results earlier.

"We divided the samples into four different types -- the quarry material as received, the pebbles as separated from this quarry material, a sample of the wall, and samples of the plaster finish. A number of the wall samples as received had the plaster finish attached. This plaster finish was in an extremely thin layer, hardly more than the thickness of a paint coat, and we scratched this finish off the wall material, using care to take only the finish coat.

"The analyses of the various materials are as follows:

	Quarry Material	Wall	Plaster Finish	Pebbles.
Silica	52.01	52.84	51.34	30.80
Iron and Aluminum Oxide	11.93	12.85	15.40	8.55
Calcium Oxide	17.25	14.71	13.37	31.58
Magnesium Oxide	1.28	2.58	2.94	1.78
Sodium & Potassium Oxide	1.63	1.77	0.65	0.47
Carbon Dioxide	12.07	9.87	7.40	23.68
Total Water	3.78	5.27	8.80	2.88
Water lost at 120 C	1.36	1.26	3.76	0.83

"It is difficult to draw definite conclusions from the analyses alone, so that any conclusions which we may make should be checked by the observer at the Monument. It is obvious that the quarry material is quite similar to that used in the wall, and the differences in analyses are not more than we would expect from samples taken at different times in the quarry. The material contains a small amount of calcium oxide and large amounts of silica, iron and alumina, and in composition compares with Puzzolanas and weak natural cements. The pebbles in the quarry material are much harder than the average of the quarry material and contain much more calcium.

"The most interesting question to be decided is whether the material was burned before being placed in the wall. The analytical data alone will not allow us to determine this as any burning which would have formed calcium oxide or calcium hydroxides when the burned products were mixed with water, would be hidden by the long time which has elapsed and it would permit recarbonation to essentially the same composition as originally existed. I would assume, however, from the color of the wall and the weakness of the samples

A

material had not been burned butpossibly had been made into a stiff tamped into place.

"The plaster finish was probably not applied as a separate coating but been obtained by simply floating the wall with water and pressing the back from the surface, bringing to the surface a coating which is in clay materials than that of the backing.

"I believe that with these analyses an inspection of the rooms might the further details as to the method of construction. I do not wish myself too closely as to the actual methods employed from the basis analysis alone."

"Very truly yours,
J.A.Murray
Chief Chemist."

This is a most interesting report to those of us who know the Casa Grande we certainly thank Mr. Lee S. Trainor, Chief Engineer, Construction and Mr. J. A. Murray, Chief Chemist, of the National Lime Association, Street, N.W., Washington, D. C. for their interest and aid.

Mr. Murray is right in thinking that the quarry material was not fore placing it in the body of the wall. The run of the pit was xed with as little water as would make a semi-plastic mass of it; the two or three hundred yards to the construction on the backs of the nd dumped on the wall, which was four feet thick at the bottom and o 15 inches at the top of the third story, and worked into position the use of bricks, blocks, or forms. Close examination of the walls to the impression that the plaster is a separate application. It different points from the thickness of a sheet of paper to an inch or . Our guess is that the quarry material was put through a rrush screen, thus removing the pebbles; the fine stuff was then mixed r to the consistency of putty and applied to the walls by hand, no hat the plasterer calls a 'darby' being used. The hand was then a pot of water kept handy for such usage and slipped on the wall iding rotary motion, rubbing the plaster to a finish and bringing out content to the surface as Mr. Murray suggests. We are not able to examination of the wall whether this plaster was fired before using hen, under the rotary rubbing motion of the hand, the plaster ightly dry or 'tacky', the hand could be slid off with a long, sweepn and no actual hand print would be left on the plaster finish.

have never been able to definitely determine whether the final inted finish on the outside of the plaster is an oxide of iron paint the original builders or an oxidation of the iron content of the tself which might take place in the centuries it has been exposed to It will be noted how the iron and aluminum oxides show a larger e in the plaster finish.

hat the ancient people knew this 'Caliche' material, as it is called was the best material available to them for building purposes is the fact that it does not crop out on the surface any place near Grande and they were willing to dig off and throw away about four feet rden, consisting of a sandy, loamy soil, to get to this particular They might have developed a rock wall construction, as did the historic people of the southwest, but for the fact that they were s, which meant that they had to live on the flat valley floor where d run their ditches, and they had no means of transporting rocks the iles from the nearest mountains. This forced the evolution of the all construction.

B.

SOUTHWESTERN MONUMENTS, JUNE, 1933.

WE ARE MOVED TO REMARK that we have had a good bit of fun out of a description of our Casa Grande museum which is printed on page 46 of the Annual Reports of Field Divisions of the National Park Service, 1932.

The pertinent part of the description of the museum follows:

"The archaeological story told here centers upon the unique Great House or Casa Grande and its interesting surrounding ruins, perhaps a thousand years old. The culture of the Ho-ho-kam, ancient inhabitants of Casa Grande, is described in some detail in the central and largest exhibit room. This is the first room to be entered by museum visitors. A small exhibit room adjacent to the central room now contains poorly organized archaeological material but could, eventually, be given over to natural history exhibits. A third small exhibit room contains modern Indian material of Maricopa, Pima and Apache origin. It is believed that the descendants of these people still live in the Casa Grande region."

In the original description these words occupy eleven lines, but there are five statements showing misunderstandings of the thing described; a fairly high percentage of error. There is no need of going into details; the description won't be read by more than a couple of dozen people anyway and none of them will be aware of the errors or will know anything about the Casa Grande Museum, so no real harm is done.

The humor is sustained too, because on the next page we catch the following words in regard to White Mountain Smith's Petrified Forest Museum:"Its design is entirely fitting and the interior finish lends itself well to the installation of handsome cases and rich specimens of polished agatized wood." And a little further on; "Plate glass and bronze museum cases provide protection for fossil wood specimens of outstanding beauty."

After all is said and done, Chief when you get right down to the case cards, plate glass and bronze do not make a museum. Nor are artistic arrangements nesessary to put over archaeological stuff. Nor does the stuff have to be highly organized with four or five types and kinds of labels for us to handle it in our own peculiar style of exhibition. I am not saying these things are not nice to have if you have the money to spend for them, but if you have the proper artifacts and a man who can explain them you have a museum ; all you need to make the thing complete is some visitors.

Party after party will go into that room full of poorly organized archaeological material with one of our men and stay for twenty minutes to half an hour listening to what he has to say about the stuff: I am willing to take on a small wager that nobody connected with the Park Service can so rearrange and organize the material as to keep those same parties in there more than fifty percent as long without an attendent but with as many glass and bronze cases as he can crowd into the room.

I don't want to argue too strongly against labels because they have a definite place in a museum; once in a while a visitor too deaf to hear you talk can read them and get some good out of them, but the average visitor won't read them if he can help himself. He will look at pictures but he balks at more than a dozen words of descriptive matter. For instance he will stand and look at a fine picture of the Gila Monster and a mounted speciman just below it and ask us if the Gila Monster is poisonous when there is a printed label six inches to the right which tells all about it and an arrow points to the poison gland of the Gila Monster in the picture. Such a thing is almost a daily occurrence in our museum, and it tends to make us pretty skeptical about trusting to organization and arrangement to get your stuff across to the visitor instead of walking around with him and talking it all over.

C

Our cover page this month is again the work of the "staff Artist"- Edgar . Rogers. Ed fusses around with a stencil and a stylus and puts a line here nd a line there and then retouches it time after time and complains that his isn't right and that that is wrong and finally turns in his work with he remark 'well there it is and it should have been this way or that way' r 'I couldn't get this right or this is wrong' but when the stencil is inally put on the machine and the sheets run off out comes a perfect work f art. I guess that Ed just likes to "beef".

The back cover is the work of an Honorary Employee Without Pay. Ranger rank Fish made the original stencil for this back cover but our Southern rizona heat dried it out and cracked it so that it couldn't be used. So idison B. Pinkley, my illustrious son, was pressed into service and made up new one that does him credit. It seems that all the money I have spent in iving him a course in Engineering at the University hasn't been wasted.

Frank Fish spent the month on furlough in Northern New Mexico. For hirty days he led the life of a cowboy and came back bowlegged and tanned arker than a Pima Indian. Mrs. Fish and the baby are still sojourning at he 6500 foot level in the cool.

It is reported that Custodian Julian visited one of his neighbors during he calf roundup and branding and ~~xxxxx~~ threw a little bull and dug some ild irish potatoes

It is also reported that it is sure death for a stray cat to appear at asa Grande. Some cats however have several lives and have to be shot two nd even three times.

CHEERIO UNTIL NEXT MONTH.

The Boss-

Southwestern Monuments

Monthly Report
July 1933

El Morro National Monument

FOREWORD

Dear Chief:

I suppose this is the last report which we of the Southwestern Monuments will make to you as Director of the National Park Service.

It is not easy to say goodbye after fifteen or sixteen years of service together, for we always felt we were working with you and not under you.

The only thing that reconciles us to the parting is that your going will prove to the world what we have always known,-sooner or later Business would offer you twice what the Government could.

We who remain will miss you and will think and speak often of you; we will be wishing you all success in your new venture; may you have health, wealth and happiness !

ADIOS.

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UNITED STATES
DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
SOUTHWESTERN MONUMENTS

Coolidge Arizona, August 1, 1933.

The Director,
National Park Service,
Washington, D. C.

ear Mr. Director:

Say, Chief, could you ride 1907 miles over every kind of roads, including one at all, in a Ford car which needed an overhauling pretty badly, in all inds of weather, at most of the hours of the day and night, and get stuck in ne mud hole five hours and in another thrity minutes, and miss a meal now nd then and get thirsty as the dickens -,- could you do all this and then put dab of powder on your nose and come up smiling the next morning for another ay of the same?

Well, two Park Service women in the persons of Miss Story and Mrs. hite Mountain Smith did just that to the everlasting astonishment of my son, ldison, and myself and we have never yet figured out where they got so much owder nor how they always came up smiling.

The month of July, so far as the Superintendent's report is concerned, as built around a trip through some of the Southwestern Monuments with the litor of the Park Service and the editorial 'we' hereinafter used refers in neral to the persons mentioned above.

Leaving my headquarters on the morning of July 1, I went to the Petified Forest National Monument that night; to Albuquerque, New Mexico, the ight of the second and on the afternoon of the third we met Miss Story at my, New Mexico, where she left the usual cares of office behind her and quired an entirely new set of worries about weather, roads, etc., for the xt three weeks or more.

We drove through Santa Fe and out to the Bandelier National Monument e afternoon of the third and walked down that five-eights mile of trail, riving at the Lodge just in time for dinner.

We remained at Bandelier over the fourth, having a restful day as far the noise and crowd of a celebration was concerned. Our visitor got a etty good understanding of the good and bad points of handling visitors rough the Bandelier National Monument and got pretty well around over the oor of the Canyon, which, of course, is a very small part of the Monument tself. The Canyon was beautiful in its summer aspect with the cool shade l the running water and our visitor seemed to enjoy it very much. Ed Rogers l the Honarary Custodian Without Pay did everything they could to make the p a successful one and we had time enough to talk everything over even to ll details.

Leaving Bandelier on the morning of the fifth, we went into Santa Fe re we spent part of the day looking over the town and paying our respects to s Nusbaum at the Laboratory of Anthropology and his charming wife at her

eautiful home and then drove on down to Albuquerque for the night.

The next day we had our work cut out for us and, getting a fairly early tart, we stopped at Isleta, Laguna and went out to Acoma. Isleta and Acoma, think, are the only two of the New Mexico pueblos which remain on the same pot where the Coronado Expedition first discovered them.

We went through the Church at Isleta. It is pretty well spoiled with estoration and modernization, but, in going through it, we met the Padre who s in charge and had a mighty pleasant half hour with him. We found common round in Gran Quivira mission history and he seemed glad to find some one who asn't simply curious about his Church.

Laguna has one of the most interesting of the Churches which are now n use and some time you must make it a point to stop there and look it over. t is a gem.

At Acoma the Indians have commercialized the village until it loses great part of its interest. They charge a dollar a head admission to hich no one would object if they would then go away and let you alone; but bout twenty of them, big, little, old and young, gather around you with ottery and gimcracks and stay under foot and in your way all the time you are n the mesa. There is an extra charge to enter the Church, an extra charge o take pictures, etc., all of which is more or less of a nuisance. As a esult, it is hard to get into the feel of the old things and one comes away ore or less dissatisfied. Acoma could be made a lovely place to visit and have long wanted to make a National Monument out of it, but it would require ome pretty sharp changes in its operation and it will not take long at the resent rate to spoil it past redemption.

Getting back on the highway from our visit to Acoma, we went on to allup and out from there to Canyon de Chelly National Monument where we ulled in at Cozy's place at 10.30 that night. Cozy was not only up but he ame ten miles or so down the road to meet us and see that we got in safely ver a new piece of road and over the new bridge which had recently been ompleted over the Nazalina Wash, near Chinle. This new bridge at Chinle nd the one at Ganado will be a wonderful help in keeping that road to Canyon e Chelly open, for those two washes were bad ones before they were bridged; ix inches of water in them was a serious matter and sixteen inches might mean he loss of a car if you didn't have sense enough to stay out.

The next day there was water in the Canyon and we could only go up de helly to the White House and could not go up del Muerto at all. We laid over he seventh but the water did not go down and then we spent the eighth with no etter results. It rained on the eighth and we feared for our roads ahead, ut the desert gods were with us and on the ninth we went through from Canyon e Chelly to Kayenta with only about twenty minutes delay in one wash where he banks had cut out. We stopped for an hour with the Wetherills and then ent on up to Harry Goulding's for the night.

Harry and Mrs. Goulding are just as much in love with that country as ver and Harry spent the greater part of the tenth in taking us around over he sand hills and showing us the sights. He has a car equipped with air heels now and can go places that he couldn't make when we were there with ou last year. Incidentally, when it comes to driving dry sand where you ave to get the last ounce of energy out of your engine about sixty times an our, commend me to Harry Goulding; if it is picking the hard spots between uick-sand pockets on a sandy canyon floor, where you have to make decisions

t the rate of thirty to the minute and the first time you fail to guess right ou go in up to the running boards, give me Cozy McSparron; if it is just a ase of having to buck all around bad roads, mud, sand, washouts, and everybody lse says it can't be done, then go and get Frank Allen, and, barring an act f Providence, he will take you through. I have seen these three fellows at ifferent times get fifty per cent more power out of a car than the maker wer put in.

Well, after seeing Monument Valley we reluctantly parted from the Gouldings nd went back to the Wetherills the evening of the tenth.

I needn't tell you what a pleasure it was to visit with the Wetherills gain and of course they sent their regards to you and recalled the details of ur trip last year as did all these folks we visited.

On the 11th we went up to Marsh Pass in the car and then took saddle ules and went in to Betatakin Ruin and returned to Kayenta for the night.

That ruin still continues to be one of the Class A sights of the southwest. he beautiful setting of course is what brings it out to the fullest extent, ut it is a mighty interesting ruin aside from the setting.

On the 12th we drove from Kayenta to the Petrified Forest National onument thinking we would catch Dr. Bryant who was scheduled in there that day ut we found that he had gained a couple of days on his schedule and was eaded for southern Arizona.

On the 14th we drove from Petrified Forest to Rainbow Lodge on the south lope of Navajo Mountain. On the 15th we went in to the Rainbow Bridge, re- ained the night of the 15th and came out on the 16th. I need not describe he trip to you because you have made it and know the beauties of the country. he Rainbow Bridge itself is only a small part of the trip in and out.

We found that country pretty well infested with Ansel Hall's scientific xpedition, a large number of whom, for scientific reasons no doubt since we ould imagine no common sensed ones, were running around about half naked.

They had carried a line of levels down to the bridge and surveyed the trail l; finding it about twelve miles long; and were finishing a topographic ap of the immediate vicinity of the bridge the day we left.

On the 17th we left Rainbow Lodge intending to get down into the Oak Creek anyon south of Flagstaff, but the desert gods willed otherwise and we spent five ours of the day in a mud hole and wound up at Inscription House Lodge, thirty- d miles from our starting place. Some brilliant Indian Service employee atched the idea of building a dam just below where the road crossed a low place, easoning that if any rain fell the water would back up over the road and stick rs. He did and it did and we did.

Next morning the very courteous guide at the Inscription House Lodge took out through the sage brush and showed us a crossing half a mile below the dam here we were able, after a few trials and a little work with the shovel, to ck through the wash. It will probably break that Indian Service man's heart en he finds there is a possible way of getting around that mud-hole he has de.

On the 18th we pulled into the Oak Creek Lodge, which is on Oak Creek outh of Flagstaff and spent the night in what we agreed was one of the loveliest laces of the whole trip. There is a beautiful Federal Aid Highway running he full length of Oak Creek now and you can go down and back on high.

On the 20th we visited the Montezuma Castle National Monument and spent

couple of very pleasant hours with Mr. and Mrs. Jackson. Here was one ace where we did not have enough time and Miss Story promised to come back gain on her next trip west and see things more thoroughly. We had planned spend the whole day but car repairs cut us down to two or three hours.

We went back into Flagstaff that night, had dinner with Mr. and Mrs. llotson, of the Grand Canyon National Park and left Miss Story with them for o days at the Canyon, we going to the Petrified Forest for the night.

We remained at the Petrified Forest on the 20th and 21st, leaving the rning of the 22nd for Chaco Canyon National Monument, where we arrived that ght.

I remained at the Chaco on the 23rd and 24th. The Archaeological udents were at work and have developed some very interesting things in this mmer's job. There have been about eight students this summer.

We had a big rain in the Chaco on the 24th and it looked for a while like would not leave on the 25th, but Mr. Paul Walter, leader of the expedition, t some of his laborers on the rock hill and the big wash at the bottom of , and, after building a couple of hundred yards of road, we got out without rther trouble. We drove into Canyon de Chelly that night, arriving about ne o'clock, where we again met Miss Story and Mrs. Smith.

This second trip into de Chelly was a gamble with the weather and the sort gods proved to be in our favor. This monument is going to be one of our remost monuments one of these days and I wanted Miss Story to know what was all about when we really begin development there. We were fortunate is time in catching the water out of the Canyon and so were able, on the 26th go the 17 miles up del Muerto to Mummy Cave, spending the whole day on the ip and seeing the many ruins along the way.

Chuck and Mrs. Richey, of Tom Vint's forces, met us at Cozy McSparron's appointment. Chuck wrestled again with the problems of location of buildings d roads and trails and I think he will agree with me that we have there about e hardest problems along those lines that we have any place among the South-stern Monuments.

We all left Cozy's place the afternoon of the 27th and went into Gallup r the night. The next day we put Miss Story on the train at Albuquerque i, if it is any consolation to her, we have been lonesome ever since.

The 29th we went into Bandelier where Mr. Richey looked over the staked ne of the proposed road to the floor of the Canyon and he will give us a port on it from his standpoint a little later.

On the 30th we left Bandelier and stopped for the night at New Laguna. came on to the Petrified Forest on the 31st and from there home to my head-arters on the first of August.

The total mileage run up this month was 3,716 on 253 gallons of gasoline r an average of 14.6 miles per gallon, which is of course a poor record and s due to the fact that the car was due for an overhaul. We had the block anged in it at Albuquerque and will turn out better mileage from now on.

In general, things in the Southwestern District are moving along in d shape. Roads are, generally speaking, in good condition but not so many 's are using them as last year according to the best reports I can gather.

The individual reports from various monuments follow.

AZTEC RUINS NATIONAL MONUMENT
(FARIS)

"For July we have 1314 visitors to report. This is still a drop of 100 compared with July of last year. We have been unable to find a just reason for the drop other than to point to the fact that people just aren't coming through.

"Several visitors of note have come to Aztec during the last month. We were especially pleased to have Dr. Bryant and family as our guests for a few minutes. Although theye were here but a short time, we enjoyed every minute of their stay. We hope their next visit will find them able to stay longer.

"Mr. and Mrs. Carl B. Livingston of Santa Fe, were with us for a time and gave us some interesting ideas upon which to work. Mr. Fred B. Hill with the Bureau of Public Roads at Mesa Verde was also among our welcome visitors. In glancing over the register we note six foriegn countries represented. One visitor from Colorado writes in the comment that this is his 29th visit.

"We regret very much that the Director has chosen to leave us but are happy in the thought that all down the line we have the men we have. It is a pleasure to continue working under a group having the policies and ideals of the Service so well in mind and have seen to their execution so well in past years.

"We are still hoping that you will make it up this way soon. We hear of you every once in awhile all around us but never see you here. Don't forget us completely, Boss for since financial aid has been cut so low, we need your help more than ever before."

BANDELIER NATIONAL MONUMENT
(ROGERS)

"Visitors for July number 737. This is 281 less than reported for July, 1932. For the first time now, we have comparative figures and the comparison isn't very favorable.

"We have had some verh hot weather this month especially during two periods of four to six days duration. One lady fainted while visiting Group D . However, she rested until late afternoon and then made it out of the Canyon on her own power. The hottest place in the Canyon is along the cliff where the ruins are found. Many light rains have occurred during the month. A very hard rain occurred the night of the 21st which did a lot of damage to trails and roads. However, the approach road is in very good condition.

(Bandelier, Cont'd)

"U.S. Highway 64 has been located re- in such a way that the turn-off at Pojoque is blind. The new highway is about 100 yards east of the old one at Pojoque and the turn-off is about three quarters of a mile back toward Santa Fe. This turn is unmarked and is easily missed. The State Highway Department promises a sign there soon.

"It would seem that visiting Bandelier is considered a postman's holiday. Ninety six letter carriers from New Mexico had a picnic here July 2nd. They were attending a state convention in Santa Fe of the National Association of Letter Carriers.

"A group of 52 from Seton's Village visited us during the month. This is the School Camp conducted by Earnest Thompson Seton and is accredited by the State Normal. This school is located five miles out of Santa Fe.

"Mrs. Martin who conducts a girls' camp near Taos was in Wednesday with 16 girls. She will bring a group in each Wednesday for about a month.

"Park Service visitors for the month were Sup't. Pinkley, Mis Isabelle Story, Mrs. Chas. J. Smith and Mrs. Tom Vint. We were especially glad that Miss Story could visit Bandelier this summer. Fire control problems brought us a visit from Chief Forester Ansel F. Hall on June 30th.

"The last few days in June I had the first ladder to the Ceremonial Cave replaced, two trail bridges repaired, the camp and parking ground thoroughly cleaned up and most of the brush out of Tyuonyi. You may remember that this ruin is pretty badly neglected and overgrown. I managed to get most of the brush cut out which permits the walls to be seen somewhat better.

"I have erected a neat sign on the parking ground on the rim calling attention to the fact that the Monument is now administered by the National Park Service and giving date of transfer from the Forest Service. This explains the use of Forest Service sighs everywhere. Most people have continued to believe the Monument is still under the Forest Service. We have also placed a sign on the entrance trail announcing that;"A Park Ranger will explain interesting features of the Ruins. Look for him at the foot of the trail". You may have noticed that ~~####~~ many visitors try to avoid a Ranger here. I think

this is less noticeable since this sign is up. It is a 7 by 10 inch zinc sign set like an easel beside the trail. It is painted white, lettered in India Ink and varnished.

"A wreck occured Friday the 21st at the last curve, about 400 yards from the parking ground. A Miss McKee from Boston drivinga 1927 Chevrolet sedan hit this curve too fast and turned over. There were four people in the car but all escaped serious injury. Two were able to come into the Canyon but the other two were bruised rather badly and were taken directly to Santa Fe.

"Two fires have been reported on the Monument this month according to the District Ranger . nother occured about the boundary of the Grant and the Monument. This must be more carefully checked to be exact. As you know, our boundaries are not exactly surveyed. Apparently all were caused by lightning. One was a snag above the Ceremonial Cave about a half mile. The other strike was a snag somewhere between the crossing of Alamo Canyon and the Stone Lions. Mr. Frey looked for two days but was unable to find it. It was either extinguished by rain or went out of its own accord."

EL MORRO NATIONAL MONUMENT.

The spirit moves both Vogt and Alfred Peterson to write in from El Morro. We'll start off by telling what EZ has to say:

"We're having a hot summer with frequent rains but they are hardly as heavy as we have experienced in average years. We're having a great many interesting and interested visitors but the number is hardly up to par.

"We have high hopes of getting the approach roads to El Morro built with the money alloted us and I'm hoping to hear from you regarding # action in this matter.

"We were surprised at the sudden resignation of Director Albright but are glad the new Director, Mr. Cammerer, knows our country and our monument.

"We have sent an invitation to the Commanding Officer of the C.C.C. Camp located in the Zuni Mountains 25 miles from the Monument to bring his young men over to see El Morro offering to make special efforts to give them pleasant and intelligent impressions of our attractions.

"A recent rain washed out one of our bridges late Saturday night near my ranch completely stopping traffic with no hopes of getting quick

aid from the county road department. I undertook to haul plank from my own lumber and repair the bridge before the Sun came up to make it hot. As I was shoveling dirt against the approach the first cars came by enroute to El Morro.

"We have learned that State Highway Commissioner P.L. Rapkoch of Las Cruces is greatly interested in the Ice Caves,-El Morro road from Grants as well as extending this road ~~from~~ to Atarque and Salt Lake. While in Las Cruces on a combined pleasure and business trip I called on Commissioner Rapkoch and I know that he will be very helpful to this part of the country.

"Enroute to Las Cruces I travelled from Ramah to St. Johns, Springerville then over the Coronado Trail. This is a beautiful drive through the White Mountains past Hannigan Meadows to Clifton. This should be a fine feeder road to our monuments although talking with store and filling station operators their interests in travel seem to lie mostly toward California and ~~&&~~ Phoenix or to El Paso and on East. The mountain country seemed a real barrier rather than an inviting region leading to an entirely different land.

"The promising pinon crop impressed me in many places and this will mean much in return to gatherers this Fall".

"With best regards, E.Z.V.

In another letter to Bob Rose we have much of interest regarding El Morro matters. We follow with this letter of July 22nd.:

"This is a tardy letter to congratulate you and Mrs. Rose on your interesting adventure and to wish you the greatest happiness in the world. We thank you for remembering us and hope you will feel free ~~##~~ & welcome come and visit us on your next trip to El Morro. We will be glad to have you and we will look forward to an early visit.

"This letter is written in one of our sheep camps near which is a new dam built for impounding flood waters. We came near losing it but 5 days work with 4 teams and fresno and 2 slip scrapers combined with an assortment of 4 Mexicans, one Zuni, a Navajo, beans, mutton, chile, spuds, eggs, wrenches, chains, double and triple trees, and a leaky tent all spiced with plenty of cuss words in Spanish- we think is going to get the best of power of repeated rains and save the water. We will need it badly in a part of our ranch where we have never been able to graze except by using snow watering for the sheep.

"I plan to get away in time on Saturday to spend a half day with Pete at El Morro . We are very much elated over the allotment for El Morro under the Industrial Recovery Act and hope to make the most of it under the guidance and advice of Mr. Pinkley.

"While writing I wish to mention the 27th of July which is "Delegation Day" before the State Highway Commission when efforts are to be made by persons from Ramah, El Morro, Ice Caves and Atarque to get something definite in the way of a road past our monument.

"No doubt we will hear from the Boss by that time concerning the way we can use the portion of allotment on approach roads. At any rate we are looking forward to a visit from you or him or a letter about this matter".

Twice during the recent field trip we attempted to go down to El Morro for I was very much interested in having Miss Story gain first hand information on this monument. Both times threatening weather prevailed to the south and it was advisable not to risk impassable roads that might result from heavy rains.

In an addenda to the above letter "EZ" writes of a new book: "Clyde Kluckhohn's book "Beyond the Rainbow" is off the Press and I find it very interesting. He has some high descriptions of his adventures through the Rainbow Bridge and Wild Horse Mesa country which region he has penetrated with pack outfits on several occasions. His photos are fine and I believe from reading the book that the author is as conversant as any living man of that wild and beautiful country".

EL MORRO-RANGER'S REPORT

Pete happens to think to bring his pencil from the cabin to the shade of the Rock and writes the following on conditions at El Morro:

"I am sorry to have to report that this has been the dullest month of my experience at this Monument as far as the number of visitors is concerned. The people who have been at El Morro during the past month number 293 and hail from 14 states and France. This is about 25% less than for July 1932 and about 50% less than for July 1931. The decrease this year is probably due to several reasons: The World's Fair is probably keeping a great many easterners from coming farther west than Chicago, since I learn that travel even on the main highways is lighter this year than last, but the chief reason for the decrease lies in the fact that the roads leading into El Morro are in uncertain condition. The old road from Grants on U S. 66 through San Rafael is notorious for its roughness even when dry, to say nothing of mud when wet. The newer, shorter road from Grant through Zuni Canyon is not posted, is little known, and, according to reports, has been closed for construction part of the time.

"The road in from Gallup, just at present, is about as good as I have ever seen it, but the general reputation of these roads after a rain frightens people from attempting a trip which might end up in a mud hole. As an example, a young Frenchman rode in on horseback the other day. I learned that he had been with a party that arrived in Gallup

just when they were having a flood as a result of a heavy, sudden shower on the surrounding hills, said flood doing about $100,000 damage. Naturally these people thought that all secondary roads were impassible but this young man determined to get out here anyhow and took the mail truck from Gallup. When he arrived in Ramah, he phoned back to his party informing them that the roads were in fair condition and to come on. In the meantime, he made his trip on horseback.

"Four nights ago I was awakened at 1:00 A.M. to be told by a boy who had just walked seven miles that his father and mother were in their car bogged down in the mud and wanted me to come and get them. It developed that in a misguided moment they had taken an old trail, thinking it the better road, and had got themselves into an awful mess - plus car trouble. In trying to aid them I also got myself stuck for two or three hours but finally got out and took the people home. They live sixteen miles from the mud hole they were stuck in. The thanks I got was "I hope I find you stuck some time so I can help you out." You can figure out from that the mental quirk which got that man on the wrong road and into the mud.

"Dr. C.C. Seltzer, anthropologist, who is making caranial measurements of Zuni Indians, brought the personal regards to the ranger of Mr. Jesse Nusbaum of the Laboratory of Anthropology, Santa Fe, New Mexico, and about the next day a friend of Deric Nusbaum, from Harvard College, arrived.

"Mr. and Mrs. J. M. Winton, professors of the Texas Christian University, Fort Worth, arrived in June and camped here until July 10th. The 'family' gathering which we had each evening for dinner, either at the Winton camp or at the Ranger cabin, is much missed by the ranger; but, according to a note just received from Mr. Winton, they plan to return about the middle of August. At that time we plan to visit some of the ice caves, including some of the later discoveries, where Mr. Winton will take moving pictures. Later at the Gallup Ceremonial Mr. Winton plans to make sound reproductions of the Indian songs and chants. Boss you better come in about that time and join us on a trip to the Malpais Ice Caves.

"Mr. Winton remarked that he has noticed a decided difference in the amount of wild life on the monument since there has been summer-time protection. Mr. and Mrs. Winton have camped here three times, missing the summer of 1932, and have noted that birds, squirrels, etc., are more numerous and tamer. The ranger has endeavored to educate the local people against the use of fire arms within the monument area, and has frequently had to keep tourists from having target practice. The Rock is scarred in many places by bullet marks, and one of the neighbors told me that, on a Sunday morning especially, it used to sound like an army was turned loose at Inscription Rock. The elimination of that practice naturally would be conducive to the propagation of wild life. That same neighbor told me that articles of Government property, such as lumber,

etc., located on the Monument, were certainly being treated with lots more respect than they would have been before I was stationed here. Witness the little pile of lumber which laid in plain sight all winter and spring. At one time it would have been a race to see which of the local settlers would get it first.

"The 'water dogs' in the cove (really the tadpole stage of the salamander) attract quite a bit of attention. The prehistoric peoples who used water from the cove quite certainly were familiar with the same animals. This is evidenced by the pictograph on Pictograph Point which quite plainly shows a 'water dog' gills and all. Mr. Winton photographed the pictograph and plans to write a short article for the Science News Letter on this subject.

"The rattlesnake the ranger captured on June 15th has only eaten six mice. Had his last mouse on July 6th and refused several in the following weeks. On July 24th he was restless and I suspected he was going to moult - and he did but had the job almost completed before I saw any of the action. He now has a new and brighter colored coat, and the old, skin measured 31 inches. He is now acting hungry, so guess I better rustle some grub for him.

"Again I shall have to postpone a discussion of boards for protection of translation signs."

We can well understand Pete would get lonesome out there but taking in rattlesnakes for company is something new.

GRAN QUIVIRA NATIONAL MONUMENT
(W.H.SMITH)

"Report time has again rolled around. Last month brought the highest temperature in 49 years with the thermometer standing about three degress higher than during the same month on average years. This would be expected in view of the extremely severe cold during the past several winter seasons.

"Travel has held up as well as could be expected considering the bad road conditions. Our monument is not on a main thoroughfare. The World's Fair is doubtless the factor causing people to hasten through on the transcontinental roads.

"We have registered 436 visitors entering the Monument in 69 cars. This is a decline of average visitors per car but several truck loads of picknickers have helped bolster the average.

"We were glad to have on July 19th a gentleman who was distributing State Highway markers for our monument. This will be a great help since so many visitors pass through not knowing of the Monument.

"We have had some of the heaviest rains in this section of the country that have fallen since 1921. The lake down near the store and Post Office filled this year for the first time in 12 years. These rains have certainly spurred vegetation on to terrific rate of growth. Grass conditions are better than for many seasons while wild flowers are blooming in profusion.

"Mr. Huey moved his well rig 2½ miles East and 1 mile south to a well he started some years ago. He had this well down to a depth of 440' and he drilled 200' more making the well 640' when water was struck. The water came in sandstone formation and is reported to be good water which is better than the average for this country.

"Mr. Yrsirro who has been sinking the shaft for the treasure here is contemplating returning to the diggings soon. Mr. Yrsirro and company were out immediately after they were notified of the damage done by the rain and repaired it to a safe state."

CASA GRANDE NATIONAL MONUMENT
(Reported by F.L. Fish)

In the absence of Custodian Palmer, Mr. Fish reports as follows:

WEATHER:- "Mean maximum----------106.1 for this year(July)
Mean max. last year---104.9

Mean minimum, July 1933----------77
Mean minimum, July, 1932----------74.7

Precipitation, July, '33----------0.83
Precipitation, July, '32----------2.21

"These figures reveal a drier July, with consistently higher temperatures than for July, 1932.

TRAVEL:- Visitors for the month of July guided through the Ruins and the Museum number 944 as compared with 1,058 for July, 1932. This does not include late parties or people driving in and turning around and going directly out without stopping.

Visitors came from 31 states, D.C., Hawaii, Panama, England and Japan.

The 944 guests were shown through the Ruins in 198 parties while the Museum parties numbered 183 different tours.

OFFICIALS ABSENT:- Custodian Palmer left July 10th on annual leave visiting friends and relatives and also the World's Fair in the Middle West. From cards received by the personnel, he and Mrs. Palmer are having a good vacation in cooler surroundings.

VISITORS OF NOTE:- Assistant Director Bryant and family on the 15th.
10 students of Geology from University of Texas on July 29th.

BIRD LIFE:-One of the young Western Horned Owls(Bubo virgianus pallescens) that made his home in the Casa Grande had to be killed during the month. In some unknown manner it lost control of its legs and was killed as an act of mercy."

CHACO CANYON NATIONAL MONUMENT

(Hurst R. Julian.)

Mr. Julian comes in with one of his usual good reports:

"Dear Boss:

"The 2056 visitors who came to the Chaco this month came from nineteen states and the Distric of Columbia. I hope that I will be pardoned for having predicted an increase of a mere one hundred per cent in the number of visitors that were expected at the Chaco this year. There were more people in the Chaco Canyon this month than there were during all of last year.

"Some of the visitors came to witness the Navajo Dances and the Chaco Rodeo, yet there were members of the faculties of nine universities who came with a professional interest in archaeology.

"Mr. Paul S. Martin was here with the Field Museum Archaeological Expedition and they seemed impressed with the ruins of the Chaco.

"Two institutions of (alleged) higher learning have included my lectures in their regular course of study. I mention this not to discredit the educational institutions but to do a little plain and fancy bragging on myself. Possibly though they feel that the ruins of the Chaco are worth while for their students in spite of the fact that I am here, ready to give them information liberally spiced with misinformation.

"For several days at a time the place was overrun with visitors that received no attention or service. There were times when the whole staff of assistants were busy. Since you perhaps are wondering where I got a staff of assistants I will explain. My staff consists wholly of Custodians Without Pay. Dr. Keur has been a constant and reliable guide; in fact he is relieving me at the present moment in order that I may get this report written in time for the mail. Mrs. Keur has, on occasion, demonstrated her worth and there is the ever-present and always reliable Mrs. Julian. Dr. Hewett relieved the holiday rush by delivering a lecture at Chetro Ketl and has on numerous occasions loaned students for emergency guide work, and Prof. Paul Walter, of the University of New Mexico, helped haul water to the visitors.

"Furthermore, every one seemed to enjoy helping handle visitors. When I attempt to express gratitude they act as though it was unnecessary that I feel indebted to them. A party of visitors evidently were pleased with the brand of service which Winnie puts out as they sent her an ice cream freezer in token of their appreciation. We now have ice cream at the Chaco.

"Prof. Clyde Kluckhohn, of the University of New Mexico, gave a series of camp fire lectures on the Navajo. Every one enjoyed them immensely. You see that I (and the neighbors) have had quite an unusual month.

"During the odd moments Mrs. Keur and I have catalogued some of the material in the museum. Probably we will not get around to this work again before fall unless the roads become impassable for a few days.

"Since the so-called 'Irish potato' is supposed to have originated in Peru, and since wild potatoes were discovered by Frank Fish during

the road building operations on the Smith ranch, there has been established at the Chaco an experimental potato patch. Dr. Keur, of the Biology Department of the Long Island University, is furnishing the more intellectual requirements of the experiment and I help in my own poor way.

"Another interesting, even if ominous, development is reported by Dr. Keur with reference to Threatening Rock. He has spent many days under the Rock making observations in connection with his permit for the investigation of the engineering of the Bonitians. He has recorded the appearance in the last week of cracks in the base of the stone. His attention was directed to them by an intermittent cracking and popping noise which, when investigated, turned out to be due to the shifting and settling of the rock. Dr. Keur is of the opinion that there is danger of the rock falling upon Pueblo Bonito. He has determined the amount of stone that is in danger of falling and has given the amount as being approximately twenty-five thousand tons.

"We have set twelve copper rods in cement on the rock and on the cliff at convenient places and are making an accurate survey which will connect them with reference to distance, relative levels, and angles of direction. Next month we will be able to report just what, if any, motion has taken place together with the direction of the motion.

"I feel that I must apologize for the undue length of this report, but there were so many things which seemed to be in need of reporting that the letter ran well over into the second page before I became aware of it."

Mr. Julian's rhetorical apology is accepted, but he of course knows that we are always anxious to get a full report on what goes on at the various monuments and the longer they are the better, so long as they are interesting like this one of his. We wish he had gone further and told something about those interesting cysts Mrs. Keur has been opening, but suppose he has reserved that until next month when the work will be further along.

MONTEZUMA CASTLE NATIONAL MONUMENT.

(M.L.Jackson)

"I have the following report to make for this monument for the month of July, 1933.

"Have had 1361 visitors for the month as against 1995 for the same month last year, which is a loss of a little better than one third. Have had only two parties to camp over night during the month. In the follow up of my last month's report you explained that some of the other monuments were off in their number of visitors and that you thought 'it was due to the fact that gasoline is high priced and the people are so hard run that they do not run their cars as much as heretofore.' Which explanation I accepted in part at the time, but I have just telephoned Bill Back, who is in charge at Montezuma's Well, which is situated seven miles north and east of here, and he reported that his visitors are off about nine percent compared with last year. As you probably

know, an admission of fifty cents per person is charged at the Well. He also reported a fairly good number of campers, but not quite as many as last year. He also charges 25 cents for camping on the grounds, and more if they use a cabin. I am also informed on very good authority that the local people are not as hard run as they were a year ago, which, I suspect, is because one of the two near-by mines are running that were closed down last year. Much Federal Aid money is also being spent in this section.

"Dr. H. C. Bryant, Chief Naturalist of the National Park Service, and family paid us a short visit on the 14th of the month. We enjoyed the visit a lot and hope they will call again.

"Superintendent Pinkley, his son Addison, Miss Story of the Washington Office, and Mrs. Smith of the Petrified Forest, spent an hour with us on the 19th. We enjoyed their visit and were sorry that they could not spend more time with us.

"We are having about the usual run of weather here for the month of July.

"We are all worked up here into thinking conditions are getting better with two thirds as many visitors this year as compared with last year we find that the Madam's curio business is a little better than last year. "

Mr. Jackson is a little confused in what we were talking about last month. Reference to that report will show that we were trying to explain a dropping off of his Sunday peak, - not a general dropping off of all visitors. A local reason, such as he gave, would not fit Casa Grande where we show the same falling off of the Sunday peak. A general reason, such as I gave will account for the facts. Last month he was running about the same total as the year before but he was higher in 'outside' traffic and lower in local traffic than the previous June. In July he is one third off the previous July and he seems to assume it all comes off his local traffic, whereas he might be getting a loss in outside traffic.

These figures on attendance, weighted and balanced for errors, make an interesting study.

NATURAL BRIDGES NATIONAL MONUMENT.

Zeke writes, under date of July 27th, as follows:

"Dear Frank:

Seems like report days come quite often now days. Everything is lovely out here; grass and flowers have grown and bloomed better than over this year and the Monument never was so green and beautiful before in July. We have had some fine showers and the floods from them have raised some trouble for me. However I was still healthy and strong and the pick and shovel did not hurt me very much and everything is all right again. There are still quite a lot of cars coming out to see me; two yesterday and three today. They average about one car per day. I still think we will have more visitors this year than ever before and I never was more in love with my little job.

"I am still in hopes for better days for the Monument, but we will just have to wait and see what happens in the future.

"I am just sick about our Captain leaving us but I know we will all wish him the very best of luck and we also feel that our new Chief will be just as kind and agreeable and efficient as was Mr. Albright."

I looked longingly over at the Bear's Ears from the Monument Valley country and told Miss Story all about you and your bridges and the country you live in, Zeke, but we just had to leave that for another year and so we turned back south from Gouldings place.

NAVAJO NATIONAL MONUMENT.

Hosteen John Wetherill writes on July 27th as follows:

"Dear Frank:

"We are having no visitors to the ruins since the party that made the two day trip when you were here.

"The ruin about which so much recently manifest interest was aroused by an exploring expedition up in this country and which was supposed to have been found last spring, was Guernsey's Poncho House. It was found first by Jackson in 1875; was visited later by Richard Wetherill in '94; by Lang and Allen in '95 and '96 and by Guernsey in 1922. You will find a map of the part of the Chinle where the ruin was found and a ground plan of the ruin in Guernsey's 1923 Bulletin of the ruins of the Southwest.

"Mr. Hargrave and his party have just finished mapping the ruin and gathering potsherds. They found the ruin interesting on account of the Pueblo 4 culture to be found there.

"Mr. Hargrave and his party are now on the way to Bluff to carry on the study of the Pueblo 4 culture to be found at that place.

"Hoping you and your party arrived home in good shape, and with best wishes for all, I am Yours truly,

John Wetherill."

PIPE SPRING NATIONAL MONUMENT.

Mr. Heaton writes on July 26th:

"Our travel has made a sharp increase over last month. This is due, I think to it being so hot and dry in this section of the country, that the local people are taking advantage of the cool water and shade we have at this Monument for gatherings such as picnics, dances, chicken roasts and swimming parties. There have been eight such parties held here this month with a total attendance of 171.

"Then we have had twelve camping parties, some staying two or three days, total of 33.

"And there is our travel that comes and goes in a hurry, not stopping to see very much of the place. Of this class I have shown about 45 through the Fort giving them the history of the place. The total number of visitors for the month I place at 329, quite an increase over last month.

"We are still trying to enjoy our hot summer and wishing that it would rain. We have not had much rain and the vegetation is suffering very much in the mountains and deserts of this section.

"The temperature has been around the hundred mark the biggest

part of the month throughout the day time and only a few degrees lower at night.

"The reason the temperature stays up at night here at the Fort is, being located on the point of the hill and to the west is a large cove surrounded by high cliffs of red sandstone and there is usually a western breeze at night. The heat that is collected by those red cliffs and stored in that cove comes out with the breeze through the night, keeping the temperature around 85 or 90 all night.

"On the 24th I took the Mrs. and the children to the head of Duck Creek for the Utah Pioneer Day celebration. There were more than 1,300 people there and we sure had a good time."

TUMACACORI NATIONAL MONUMENT.

Mr. Boundey has the following report:

"Dear Boss:

"We had 725 visitors for the month of July; a great many of them being eastern visitors who were out to see the sights in spite of the heat.

"The summer rains have made the Valley quite green and the cattle are looking very much better.

"Owing to the open shallow wells in the vicinity we have been having an epidemic of typhoid. We have had two deaths so far, one of them David Casanega who has helped us here at the Mission many times and who recently installed our lights.

"Assistant Director, Dr. Bryant spent Sunday afternoon with us. With him was his wife and children and Dr. Taylor and family of the University of Arizona.

"On the way home from a recent trip to the Casa Grande Ruins I located about 100 shrubs of the Crucifixion Thorn tree. They may be seen from the highway on both sides of the road from the viaduct north going toward Coolidge."

IN GENERAL

Business is picking up over this district. Travel is not quite where it was a year ago as far as the automobile tourist is concerned but the train travel is much better. Roads in general are in good condition. We have not had quite as much rain as usual over the district as a whole and the range will not go into the winter in very good shape; cattle men are worried.

Cordially,

Frank Pinkley

Superintendent.

SUPPLEMENT
MONTHLY REPORT
SOUTHWESTERN MONUMENTS August 1, 1933.

The Washington Office has issued Office Orders from time to time on the subject of "INTRODUCTORY STATEMENT REGARDING THE NATIONAL PARK SERVICE TO BE USED AT THE BEGINNING OF ALL OFFICIAL LECTURE AND GUIDE TOURS". This month's Supplement will contain reprints of all of these Orders. These should be read carefully by all of our Southwestern personnel in order that we might, in the course of our field and museum trips, comply with their spirit as closely as possible.

Examination of the Orders reveal that they were designed for the personnel of the national parks. With slight revisions, which I shall indicate at the close of this discussion, most of the provisions can be changed to fit our situation in the national monuments. These Orders in full follow:

"NATIONAL PARK SERVICE,
WASHINGTON. May 20/1931.

OFFICE ORDER NO. 230.

"INTRODUCTORY STATEMENT REGARDING THE NATIONAL PARK SERVICE TO BE USED AT BEGINNING OF ALL OFFICIAL LECTURE AND GUIDE TOURS.

"Attention has already been called to the need for including in every guided trip a statement regarding the aims, extent, and activities of the National Park Service.

"Among worth-while statements that should be included are the following:

1. The national park system first began with the creation of Yellowstone in 1872, now comprises 22 national parks and 34 monuments, with a total of 16,262.33 square miles.

2. The national parks have been set aside for the benefit and enjoyment of the people.

3. The national parks contain the finest natural phenomena of the Nation. Therefore every visitor should gain increased knowledge and inspiration.

4. To help the visitor understand and interpret the principal features, the National Park Service has established an educational branch. Rangers and ranger naturalists in uniform are at hand to answer questions, take you on a nature walk, furnish you illustrated lectures and explain museum exhibits.

5. The roads, trails, bridges, camp grounds, telephone lines, etc., within these parks are built and maintained at the expense of the Federal Government. A park superintendent is in direct charge of all governmental activities.

6. Hotels, stores, transportation service, and similar public utilities are owned by private individuals or corporations and are operated under a permit or contract from the Department of the Interior. Such facilities are closely regulated by the Government as to rates and service.

7. Every effort is being made by the National Park Service to make your stay in this park enjoyable and profitable.

"A statement used in Yellowstone that has been found satisfactory is as follows:

"As an introduction to my lecture you will be interested to learn that this Yellowstone National Park was created in 1872, the first of 22 parks now in the national park system. Each park has an individuality of its own and has been established in recognition of that peculiar characteristic, so there is no duplication of the parks in the series. You will find the Yellowstone different from the Grand Canyon, and both again different from the Yosemite. There are also 34 national monuments, which were created because of some outstanding scientific and historic features and not primarily as great recreational centers for the enjoyment of the visitors.

"In these national parks the government provides roads and trails and a policing and patrolling force, as well as a staff of scientists who are specially trained to see that you enjoy your visit in a most profitable and safe way.

"In order to provide safe and convenient transportation and sleeping accomodations for you, the Government has contracted with responsible concerns for the installation of transportation, hotels, public camps and the like.

"The representative of the Government in charge of the park is Superintendent Roger W. Toll, whose headquarters are at Mammoth

Hot Springs. He will be glad to receive any criticisms that may be offered to better the service anywhere along the line and to receive such compliments as the service furnished in this park may merit."

"HORACE M. ALBRIGHT, Director.

Examining these seven statements carefully, we find only the first specifically mentions national monuments. This reference is clouded in the indefinite words "34 national monuments" with their area mixed in with that of the total for national parks. The remainder of the points of the Office Order show clearly that the instructions were made with national parks in mind. However, perhaps in examining them point by point, certain revisions suggest themselves-revisions by which the information desired according to the spirit of the order can be given in our guided tours and lectures. Let us consider possible revisions, point by point:

(1) In substance it will interest visitors to know that your particular monument is"one of 20 in a regional organization known as Southwestern Monuments, with headquarters at Coolidge, Arizona. While the National monuments date back to the passage of the Antiquities Act of Congress in 1906, the 22 national parks had their beginning with the creation of Yellowstone National Park by Act of Congress in 1872".

a. Most of the members of our personnel do include this information somewhere along the line in the tours and lectures. However, it would be a good thing to take stock of information on our service we give during our tours and find just how much information of this kind we are giving. This will give something to work upon.

(2) To state merely that "national parks have been set aside for the benefit and enjoyment of the people would certainly not be sufficient for us among Southwestern Monuments. In our situation it appears that we should explain that the Antiquities Act of Congress in 1906 gave the President the power to create national monuments by proclamation and that the Nation's outstanding features of historic, prehistoric and scientific interest have been so preserved. We might go further in explaining that the appeals of far-sighted and public-spirited leaders in the Southwest were directly responsible for bringing about this legislation. In short, we should familiarize ourselves with the interesting history of the National Monuments act and acquaint ourselves with the circumstances that brought it about. Then, of course, in explaining the difference between national monuments and national parks, it will prove necessary to be familiar with the history and ideals of the entire organization. At any rate, to merely inform national monuments visitors on why <u>national parks</u> alone were created, and no more, would be very weak without explaining why national <u>monuments</u> were created.

(3) It suffices to say that a brief characterization of the national monuments as "the Nation's outstanding features of HISTORIC, PREHISTORIC AND SCIENTIFIC INTEREST are included among the national monuments, would serve our purpose in Southwestern Monuments. A NATIONAL MONUMENT IS NOT A "SMALL NATIONAL PARK". Consider (1) the difference in definition and (2) the difference in method of creation and the error of such assumption is very clear, indeed.

(4) To quote the statements of No. 4 of the Order verbatum seems much too formal for our purpose. Yet, we can bring out this bit of information to the visitor in a fine way just as we are bidding him goodbye. In effect, we can say "Don't fail to join the guided parties and hear the lectures at the other monuments and parks you happen to visit. Rangers and ranger naturalists of our Service are there to help you gain the most from your visit. You'll find their guide and lecture services most interesting.

(5) Monuments visitors so often ask why they are admitted to monuments without entrance fees to pay whereas they paid so many dollars to get into various national parks. Here is an excellent opportunity for monuments personnel to explain that the extra personnell, checking stations, etc, would absorb most of the collections when the books are finally balanced and that very little would remain for these improvements. It can be further explained that for that reason the government has held the desire to keep admission to monuments free.

(6) In monuments having concessions it will prove necessary to explain this point to visitors. In our monuments where concessions are lacking, it would be pointless to include this information voluntarily except as an answer to a direct question.

(7) Since in most of our monuments visitors average about 1½ hours with us, it's best to demonstrate this point by our alertness and courteousness in giving service.

a. This point can also be expressed in the invitation to the visitors to visit all of the monuments and parks they can as they tour the country.

On June 13, 1932, another Memorandum to Park and Monument Superintendents and Custodians was issued again emphasizing the former order to include mention of the National Park Service as a bureau of the Department of the Interior.

Members of our Southwestern personnel know how often we are asked by visitors the question "Are you fellows the same as Forest Rangers, or are you different ?" This question justifies the mention of the National Park Service as a part of the Department of the Interior to all parties of visitors. However, we find it drives the point home better to explain the difference between the National Park Service and the U.S. Forest Service in answer to a definite query on the part of the visitor rather than giving this information arbitrarily at the start of the trip. At any rate, there are many orpportunities to give this fact in the course of a tour where it will be very interesting to the visitor to do so. For that reason we should study our ruins and museum lectures to find where best this information can be inserted.

This Memorandum stresses the mention of concessions, hotels, and camps. Doubtless, there is little point in our monuments to bringing this up unless (1) our monument happens to have a concession; or (2) our visitors happen to ask about concessions. Concessions just aren't an important item to about 99% of our monuments visitors whereas in the parks concessioners contact almost 100% of the visitors in one way or anotheer.

MEMORANDUM FOR PARK AND MONUMENT Superintendents, Custodians, Naturalists and Historians reiterates compliance with Office Order 230 of May 20, 1931, and Mimeograph No. 63913 of June 13, 1932. Instructions in Memorandum No. 7 of May 19, 1933 to Park Naturalists and Historians deals with the same subject and emphasizes the importance of public contact men familiarizing themselves with the history, aims and ideals of the National Park Service.

Further study of literature along lines of our work is one of the most effective ways of refreshing our outlook on our work and is a very good antidote to growing "stale". Read Park Service literature on the history, aims and ideals of the National Park Service; look up more information on the variety of activities of the Department of the Interior; Re-read the basic reference books on your particular park or monument; sit down awhile and reflect how you can include some of these interesting things in your tour or lecture in a new way not tried before. You will be astonished with the results. Not only will you take renewed hold on your work and profit personally, but you will find reward for your efforts reflected in the greater appreciation your audiences and guided parties will have for the services you are giving.

Among Southwestern Monuments it appears that the best method of getting these points on the aims, ideals and policies of the National Park Service across is to (a) give some of the points in the introduction of the talk or tour and weave the remainder into the general fabric of the entire museums-field trips circuit in response to direct queries from visitors; and (2) to give a revised form of information to suit our situation in the monuments. We should certainly tell visitors when our particular monument was first set aside and why; circumstances leading up to the passage of the Antiquities Act by Congress in 1906; the difference between national monuments and national parks; and that these guide and lecture services are maintained by rangers, ranger naturalists and custodians at the other monuments and parks they may happen to visit on their tour. In making sure that we explain these general points along with the particular history of our own monument, we can best comply with the spirit of the Office Orders and at the same time be giving visitors information they usually want.

Judging from observations made during my visits to a few of the national monuments during the heavy travel season, any my visits to the remaining ones after the season was practically over, I can say that in Southwestern Monuments this information is usually completely given before the tours are finished. However, it is suggested that you examine your tours and lectures and the information you put out and if you are not giving as much on the history, aims ideals, etc. of the monuments and parks system as has been outlined above, and as you can give consistently to your short-stay visitors, see what can be done to improve the situation.

(R.H.Rose).

A great deal has been said about museums and museum cases in sections of the monthly report in the past. However, not enough has been said in any c&&& instance to make a completed logical argument one way or the other. Cartainly, with two new Administration and Exhibit Buildings(including Petrified Forest) at some $10,000 each and prospects of a few more within the next few years, it's about time a rational outlook on this museums case problem be reached. In the next few pages this problem is going to be tackled. I'm going to attempt to reach some definite conclusions with reasons to support them. The conclusions as they apply to any particular monument presupposes that there is a building of adequate space and high quality at that monument. Bearing that in mind, as you read the account the statements and conclusions will be perhaps clearer.

ADEQUATE - VS - INADEQUATE MUSEUM CASES.
(R. H. R.)

INTRODUCTION

In the Supplement for June some ideas were expressed relative to what constitutes a National Park Service museum. The gist of the discussion lay in the importance attached to personally conducted tours through our museums. In the remarks there was sounded a warning that bronze and plate glass museum cases should not supplant our practice of personally conducted museum trips. It was further urged that groupings of related materials, artistic arrangements of exhibits, maps and labels should not replace our guides who give visitors the highlights of exhibit materials in the form of conducted museum tours.

PERSONALLY CONDUCTED MUSEUM TRIPS SOUND EDUCATIONAL POLICY

The fact that we may have, or may not have, plate glass and bronze museum cases should have little to do with the question of whether or not personally conducting our visitors through our museums is sound educational policy. I believe, in Southwestern Monuments, should we be able to afford ten miles of plate glass and bronze, we will continue to be sold on the value of personally conducted museum trips. Such talks will stimulate the visitor to greater interest in the collection and will be of great value in orienting the various groups of material in the story of that particular prehistoric culture. The same would hold for historical or geological collections. Now, if we're careful not to confuse conducted museum trips with "plate glass and bronze cases", we'll attack this problem from a somewhat different angle. Let us consider the problem of ADEQUATE - VS - INADEQUATE MUSEUM CASES.

ADEQUATE - VS - INADEQUATE MUSEUM CASES

After all is said and done, we can afford no better cases than we can procure through donations or appropriations, or both. Also we are quite sure here in Southwestern Monuments that we'll have to keep plugging along in many of our museums with cramped space and open front wooden cases. However, as has been amply illustrated through monies alloted to other projects by virtue of recent special legislation, it isn't hard to see that funds for museum cases may come from unexpected sources and at unexpected times. If and when, you have an opportunity to receive and use such funds for ADEQUATE cases, whether these be wood, bronze or what not, what is going to be your reaction ? Is it going to be a half-hearted conviction that the best modern cases are extravagant and that the open-front or loosely constructed cases

YOU NOW HAVE ARE sufficient for all time to come, or are you going to feel like enthusiastically jumping at the first opportunity you might have to replace such inadequate cases as you might now have with new, carefully constructed modern ones ?

In the Southwest what may be considered an over enthusiasm for the advantages of open front cases. I hasten to state that such enthusiasm is well-founded when considered from the standpoint of greater appeal to the visitor which comes from being able to examine closely the exhibit materials by hefting, lifting, moving it about, turning it around, and otherwise getting that peculiar appeal that comes through the sense of touch. That has led some of our personnel, apparently, to think that this particular superiority of open front cases makes them suitable from other standpoints also, for all time to come. I'd like to analyze this viewpoint carefully. It has strong points, but within it seem to be hidden serious weaknesses which we should know and consider.

QUESTIONING THE ENDURING VALUE OF OPEN FRONT AND LOOSELY CONSTRUCTED MUSEUM CASES

Practically all of the material exhibited in open front and loosely constructed cases is replacable. Nethertheless, the total amount of first class material in existence from any particular culture is more or less limited. Thus, we as guides handle, and permit visitors to handle, a great deal of our very valuable, though replacable, material. What will be the results of such practices on this material if permitted over an indefinitely long time ?

We should strive to make our National Park Service museums into PERMANENT and ENDURING institutions, both from the standpoint of physical equipment and maintaining a spirit of giving the very best of personal services to visiting groups. We must realize that our policies of service are not designed for the crowds that will come next Sunday, or even during the next five years. These broader principles of service should be designed to hold over an INDEFINITELY long time. With this idea in mind, let us consider what is going to happen in the museum of open front or loosely constructed cases in the next 100, or even 500, years, under present operating conditions. Some rather startling ideas are developed:

1. At Casa Grande, for example, stealage is considered negligible. Yet, despite the constant presence of a guide with his eagle eye, about 4 objects of considerable museum value are stolen each year, never to return. This would mean 400 objects in 100 years, or 2,000

bjects in 500m years, will be stolen if this rate continues to hold. We've little reason to think it will improve.

.. The guide, or ranger, handles approximately 10 rather valuable objects on every trip. This is done on an average of about 8 times daily through the year by the guide staff. In one year, guides will handle these objects about 3,000 times. This would be about 300,000 times in 100 years, or 1,500,000 times in 500 years ! Thinking in terms of such long periods of time may perchance seem foolish until we stop to consider that if somebody 500 or 1,000 years ago had not done some thinking along these lines we'd today be far poorer in relics of the past.

a. Ten guides making ten trips each daily would have to work about 8 years to handle the objects as much as our guides will have to handle them in 100 years. These guides would have to work for 40 years to handle them as much as they will be disturbed in 500 years. Think of the accidents by dropping, wear, niching of corners, etc. for which guides alone will be accountable !

b. Lest someone feel the ideas are too theoretical, consider that in an ordinary household where folk are too proud of their dishes to be throwing them at one another, the family finds itself eating from a new set of dishes on an average of about once in every ten years. Some do better, others do worse. Similarly, our museums will differ in amounts of exhibit materials damaged or destroyed by handling. Is it too much to expect that the valuable material in our museums today should be intact certuries into the future ?

3. About 2,400,000 people will pass through the Casa Grande Museum during the next 100 years; 12,000,000 will come in 500 years. Other S.W. Monuments museums will have totals as impressive, or even more so.

a. Let these people, 1000 of them daily, come in upon us, beginning tomorrow. Let them examine this, drop that, tip something else over- in fact let them behave just like average parties do. It will take 6 years for our 2,400,000 to get through, or 30 years for our 500 years travel to be served.

b. With a lot of valuable, though replacable, material around in the open, granting that guides will be about constantly, what will this material look like after 2,400,000, or 12,000,000 people have passed through? We'll all agree that a lot of damage will be noted. We will probably differ somewhat as to the amount.

4. Open front or loosely constructed cases always seem to look dusty despite weekly cleanings. Suppose the janitor dusts open front cases once weekly. This would be 50 times anually, or 5000 times in 100 years. In 500 years this would be 25,000 times . This requires moving the materials from the shelves and replacing it.

   a. Suppose janitors started taking down and putting up the material 100 times daily. In 8 months they would move the material as it will be moved in about 500 years. Think of accidents, wear, niching, etc. that will be done even with utmost care taken.

5. Add to these factors, the more rapid rate of discoloration and disintegration that will occurr to materials in open front or loosely constructed cases. These factors will operate to much higher degree on materials in loose or open cases than with tightly constructed, dust-proof modern cases.

When I think of our best materials now on display and which are at best replacable by materials 'not quite as high class', I'm moved to remark that practically all existing materials in our archeological collections are worthy of adequate permanent protection from the disturbing factors listed above. Granting that we have fine housing facilities, if the best cases are of plate glass and bronze or aluminum alloy frames as they seem to be, then our materials subjected to these damaging factors are worthy of plate glass and aluminum or bronze cases. Evey large class that are being constantly tugged at, leaned or or scratched, are deserving of a railing, rope or other protection.

Most of us would rejoice if someone were to discover a successful protective coating that would preserve indefinitely the walls of our ruins from weathering and other disturbances. People like to clambor over our ruins walls constantly damaging them and we pass rules prohibiting such practices. Yet, proportionately, we've as many ruins walls as we have quantity of museum materials. Personally, I can see little difference between damaging ruins walls by clambering over them and the damage wrought on valuable museum materials by any one, or all, of the factors discussed above.

DISCUSSION OF SOME EDUCATIONAL PRINCIPLES ABOUT MUSEUMS

A. The superior educational advantage of materials in the open has been discussed and recognized from one standpoint, that of appealing to visitors through sense of touch in addition to sight and hearing(guide's talk). However, if we wish the exhibit materials to last indefinitely and contribute their all important part to our

MUSeums as PERMANENT and ENDURING institutions, keeping material open that's liable to damage would be hard to justify. There are heavier, more massive objects like metates and mortars which would last indefinitely without dust-proof protection. However, a metate of unusual nature or stone axe of unusual design and finish, along with pottery, scraping tools, skulls, cremation burials, etc., would certainly seem deserving of best protection.

B. Materials behind glass cases of fine manufacture like those of the Petrified Forest, Heard and other museums, by no means lose all of their educational appeal. Artistic arrangements, groupings, and the like lend a preciousness to such materials that impresses the visitor with a feeling of respect. Such signifies that we regard the material of high value or we would not so preserve it. More permanent, undisturbed, arrangements are possible in closed cases that do not need frequent disturbing to clean, dust and etc.

C. With the most adequate personnel possible, there are many instances where but one guide can be on duty. In fact we have a majority of instances of one guide today in S.W. Monuments. When this one guide finished a museum trip and starts afield with a new party, he must lock the museum door behind him despite the fact that if invited to do so those he has just taken on the museum tour would like to remain and do more study. It seems visitors are entitled to this privilege even under conditions of limited guide service. Yet, I do not see how this practice of allowing "museum browsing" could be adopted as permanent policy with so much open, valuable material.

a. It cannot be assumed that where about 40 minutes are taken for a museum tour, the guide has told everything about all of the material. As a matter of fact we are always having to judge our crowd and more or less adjust length of tour accordingly. Consequently, we cannot assume that all have seen everything to their entire satisfaction.

b. We shouldn't overlook the fact that some people feel like I have felt dozens of times in visiting museums; that is, after guides have given good highlights in a very interesting way, many visitors prefer a great deal more looking about alone. With materials behind glass, logical groups, labels, maps, etc., such 'museum browsing' can be allowed and welcomed. To perfect a museum to this stage requires careful planning and considerable time for there's a successful way to many unsuccessful ways of reaching this goal.

The writer wishes to emphasize that we are sold on the idea of conducted museum trips in Southwestern Monuments. Therefore this discussion is not one of "Plate Glass-vs-Guided Museum Trips". It is a discussion of "Adequate-vs-Adequate Museum Cases" and was prompted by the writer's conviction that the best cases money can buy are none too good for our valuable material regardless of the fact that we might be able to replace it a half dozen times with material "almost as good". My whole object in outlining this subject lies in the hope that if, and when, good housing space is provided, we will not hesitate to get behind and push any scheme that will result in adequate cases for our museum materials. With present inadequate quarters for some of our museums, home constructed cases with closely fitted glass fronts may be adequate for the time being. BUT UPON PUTTING SOME $10,000.00 INTO A FINE MUSEUM AND EXHIBIT BUILDING, AT LEAST $1,000.00 CARTAINLY DOESN'T SEEM TOO MUCH TO ASK FOR ADEQUATE CASES TO PROTECT THE MATERIALS SUCH TEN THOUSAND DOLLAR BUILDINGS WERE DESIGNED TO ACCOMODATE.

(Robert H. Rose).

Frank Fish, Ranger, returned June 30th from annual leave in new Mexico. The remainder of the family are still in the cooler, higher altitudes of New Mexico.

This report has about three days to go before it will be stapled together and sent out. Coming to the end of the month we find all our artists are on other sections of our domain and unless someone voluntarily sends in a cover page creation, this report will look like a college term paper.

Bob and Mrs. Rose returned July 9th from annual leave. Custodian and Mrs. Palmer left early the next morning for Illinois to visit relatives. They are reporting a good time and have attended the Century of Progress in Chicago.

Mrs. Evenstad and Norene left early in the month for North Dakota where they will be all summer.

From all appearances, funds provided under the National Recovery Act will give most of us something to think about for a long time to come. Projects calling for 80% labor in total cost were those favored in the distribution of allotments.

SOME PROBLEMS IN GUIDED TRIPS.

From the number of times I have been asked about guided trips and the characteristics of a good guide, I believe some ideas along these lines will be of interest to others in our organization. Often after accompanying guided trips with rangers and others in the monuments I have been asked for suggestions on how to generally improve the service. Some ideas along this line will also follow.

Do I expect all to whole-heartedly agree with the ideas I'll express in the following paragraphs ? I should say not; If as you read the ideas your 'temper begins to rise' it will indicate that you are doing some lively thinking as you read. And if you've differences to express, come out with them with as much argument to support them as possible.

For sake of clarity, these ideas will be set forth in a series of questions and answers:

QUESTION:* "What would you consider to be characteristics of a successfully guided trip?"

ANSWER:- Beginning with "I don't know,"we'll work from there .

This is like trying to describe the taste of a good apple. About the only proof lies in the eating of it. Similarly, most of us know some guides give splendid results and others find difficulty in holding attention, interest, etc.

a. Of course, there must be &&&& enthusiasm, tact, loyalty and interest on the part of the guide to start with. Without thse, there's nothing upon which to build.

b. Another requirement is that the brand of service we give must please our visitors. With half getting 'bored' and walking away from you before you've scarcely started, there's no escaping the fact that something is wrong somewhere. This will be considered later.

c. A second requirement is that certain fundamental points should be gotten across to all groups. Just sit down with paper and pencil and suppose you were paying for a personal telegram to someone in the east and in this telegram you were going to include the essential facts of your monument's story. You'll surprise yourself how briefly(especially if you pay the telegram at day rates) you can do this. Those facts will in all probability ~~BE~~ constitute the "minimum essentials" of what visiting parties should be told. Outside of these 'minimum essentials', the remaining information can be greatly varied to suit (1) the interests and enthusiasm of the parties; (2) the time available for each tour, if the day is a busy one; (3) actual time the visitors can themselves stay; and (4) conditions as to temperature and other weather conditions.

QUESTION:- "Is it good policy to adhere strictly to a rigid minimum time requirement under all conditions for all parties?"

ANSWER:- I believe the answers of all of us would be that such policy would be unwise. However, there are points bearing upon the question that are worthy of note.

a. First of all, we all realize that "just because it takes 3-hours to"tell all we know"about a given ruin or culture" should not impose the requirement that we must take 3-hours or haven't been a success. The time factor will be very flexible, depending upon (1) the ability of the guide to talk interestingly and hold attention beyond the 'minimum essentials'; (2) the guide's knowledge and enthusiasm for the particular story he is putting across; (3) the guide's tact in holding interest through his skill in presentation, which method for instance should be vastly different for a group of children than for adults; (4) the length of time visitors can stay; and (5) the length of time possible for each party during rush days.

b. I've seen instances, I believe, of where the guide felt the parties were "dumb", lacked response and appreciation, and etc, when the fault lay almost wholly in the guide himself. Sometimes the guide "gets up on the wrong side of the bed", has been up 2/3 of the night, or has grown 'stale', or in some other way is not up to 'par' in energy and enthusiasm. It's a good idea to take inventory of one's self for to constantly shift the blame for dull, listless trips to something else besides one's self is the quickest way I know of for blocking improvement in your services. Come right out and admit that there's something wrong with you when a great number of your trips are dull and listless, then you'll have something to work upon. You can't change the mill run of visitors; they'll continue to be bankers, cotton choppers, school teachers, steel workers, etc. with about the same variety and intensity of interests.

If you feel yourself 'slipping' thru staleness, the best thing in the world is to buckle down and read and re-read all you can find on your job and read something good about other regions, etc.

c. We might again briefly state that additional reading is the surect tonic for 'staleness' you can find.

QUESTION:- "To get down to brass tacks, what are a few tangible things upon which I can work to improve my trips and make them more interesting?"

ANSWER:- One or more, of several things might be improved; (1) Maybe you are talking scientific 'lingo' to laymen; (2) you may be keeping people unduly long against their will, especially where they gave you excellent reasons why at the start of the trip that they could

STAY only a certain length of time. Sometimes visitors do this as a "stall" and after getting interested, have no limit to time. This isn't always the case, however, and if the entire party must go soon, then we should give them as good service in the time they have as possible. Of course, in the short time you can't tell them 'all you know' about your ruin; nor could you in a 50 word telegram. It's surprising how much you can say in a few words if you just have to.

a. Sometimes guides repeat themselves in the same language too often. The same idea driven home in several different ways is good psychology, but not in repeated words.

b. A general fault of so many guides is that they'll keep a crowd of visitors standing too long in one spot. A man you would stand in one spot and listen to for 20m minutes without at least walking a few steps, would have to be a "whiz" to hold the interest of a crowd without many getting restless and standing on first one foot and then the other, or leaving you flat.

c. If you'll analyze your tours, you'll find perhaps a half dozen places where you can break a long stop into two or three short ones. Try it; there are few better ways of improving than this.

d. Did you ever attend a lantern slide lecture where the speaker had about 50 slides from which to talk, and yet he seemed to almost wear you out by keeping one slide on and talking about it for a long time ? A successful illustrated lecturer among other things, to be successful, MUST "keep the ball rolling" by good prompt, snappy changing of slides. These slides MUST be arranged so that in developing the lecture the idea in one slide seems to MELT into the idea of the next slide. This must be done with minimum delay on any one slide. In our guided tours, there's a lesson in this. For example, you don't have to keep visitors standing out in front while you give a 20 minute dissertation on four types of masonry, or the re-occupation by Mesa Verde Peoples and proof therefor, or the full story of building the coursed mud walls. There are a dozen places along the line to illustrate and build up these points gradually. I daresay, not one of us has been without a fault of this kind at some time and to sit back and think we're perfect guides and that restless people are "dumb", just won't get us anyplace.

e. Read and re-read cannot be emphasized too much as a tonic for ~~"growing stale"~~. Whatever we do, we should not be too hasty in fastening the blame on "dumb" visitors when they leave us, get restless, show no response or seem not to appreciate our services. Something is wrong-certainly- but it is 10-to-1 a fault, or faults, of us as guides rather than of the visitors.

QUESTION:- "In archeological parks and monuments like many of Southwestern Monuments and Mesa Verde, what are some specific ideas on subject matter improvement that might be worth while?"

ANSWER:* There's nothing quite so good as having an entirely new individual come in who knows nothing of your monument but who is interested in learning about it, and getting his reactions. Many of us get into a "rut" and instead of applying more"power" to get out, we just get deeper.

a. Well, in some instances our guides talk "solid mud wall construction","four types of masonry", "sequence of construction" of rooms and sections of buildings without touching mush upon the broader problems of (1) theories of how ancestors of these cliff dwellers and pueblo builders came to this continent; (2) touching carefully on theories as to where the peoples have gone and where they might be represented today; or (3) the community of spirit possessed by these people who cooperated to build homes as contrasted with the great edifices of the ancient Old World build by thousands of slaves driven to their work, etc.

B. Building up certain broader facts and relationships furnishes a perspective which cannot be build up without careful study and thought on presentation. I'd like to be so bold as to say that building up a fine perspective, showing people just where your particular ruins and ancient peoples fit in with the whole scheme of Southwestern Archeology is just as important as an array of academic facts about pottery, stone and mud mortar, or caliche, or other narrower subjects.

c. To be taken on a tour without this perspective being efficiently built up would be comparable to studying the history of the World War as a series of 'battles' and omitting reference to (1) military and economic rivalries dating back several decades; (2) former territorial divisions; etc. which, after all, must be understood in order to really know much about the World War. I believe the comparison of these points with our guide trip and lecture organization contains a worth while lesson.

When thinking over problems such as those above, we become keenly aware of the need for a meeting, or call it a conference, every so often in which we would talk over these ideas and discuss their application to individual monuments problems. Lacking in these meetings, perhaps dealing now and then with problems in this section of the Report may be of benefit to some of you. You may not agree with me on all points. I'd say "GOOD" if as you read along your 'blood pressure' would rise and you concluded about every ten lines that my ideas are "haywire". That'd indicate you were thinking which is the first requirement to getting places along these lines.

MUSEUM OBJECTIVES.

Some time ago Dr. C. P. Russell, Field Naturalist, kindly allowed us to examine an outline of his on a talk he gave at the American Association of Museums meeting in Chicago. Reading these points over, The Boss felt that they should be reprinted here for what they will be worth to us. In Southwestern Monuments, if we know nothing about museums in a broader sense, it's getting time that we did because before the program of projects under special recent legislation some of us will be faced with equipping exhibit buildings. I quote the outline in full:

SOME FACTS DEVELOPED IN NATIONAL PARKS MUSEUM WORK

First seven points----------C. P. Russell, Field Naturalist.
Eight to twelve, Inc.----------R. H. Rose, upon Dr. Russell's request.

1. In the national parks the real museum is the out-of-doors. Man-made museums, here, are to be regarded as a species of elaborate label.

2. Focal point museums and trailside shrines, if wisely located, will reach the park visitors and make intelligible the natural phenomena in which they are interested. These museum and shrine sites become interrogation and exclamation points along the line of travel.

3. Oublication of Trailside Notes, freely distributed to the automobile driving visitor, will weave into a common fabric what he reads in park literature, what he picks up from fellow tourists, and what he sees in park museums.

4. Park Museums, like other museums, are not sufficient unto themselves. They are no stronger than the staff that mans them. Park Naturalists(Directors) and Assistant Park Naturalists(Curators) should be scholars, not technologists, if the museums are to be real "Nurseries of Living Thought". The problem of adequate personnel in national park educational work remains to be solved.

5. In addition to "trailside" or subsidiary museums each park and monument requires a central or headquarters museum properly equipped with a library and facilities for office and laboratory work. This central museum is required as a "hub" for the general educational work(field trips and lectures) of the park.

6. Each park or monument museum project should assume the duty of securing representative study collections from its immediate locality.

7. Desirability of research by park museum staff members does not now receive due official recognition. Training of temporary ranger-naturalists and permanent staff members, preservation of data, and the promotion of conservation cannot be done efficiently unless investigations are pursued.

(Additional points---R.H.R.)

8. The same high degree of competency and familiarity with methods of scientific investigation should be expected of staff members doing research work in national parks and monuments as are required in scientific research in universities and other research institutions. Unless research work in parks and monuments is of a quality to insure recognition, rather than disapproval, of scientific leaders in various fields, such work had best be left undone.

9. In order to educate the lay public, Park Service museums must go a step further than research museums. Their climax is our beginning. We must go then one better by taking their neatly labeled and technically classified materials, arrange them artistically and attractively into logical groupings, and by means of graphic portrayal through labels, maps, charts, pictures, control labels connected with subsidiary labels, and other popularization methods, make all of these materials fit into the general scheme of telling or intepreting the main story about which the materials were associated or had their origin.

10. Designs, sizes and shapes and shelf arrangements of exhibit cases in Park Service museums should be dictated wholly by the types of case designs required for most efficient popularization and graphic portrayal of the auxilliary stories and main story. (The more thought given this statement, apparently the more significant it becomes).

11. Park Service museums should be so constructed and so equipped with cases and other furnishings as to make them PERMANENT and ENDURING institutions. This demands the same high quality and efficiency be considered in equipment as were put into the design of the museum edifice itself.

12. Educational staff members including Park Naturalists, ranger naturalists and ranger historians, as"trained interpreters of scientific truths and theories, should keep informed in current developments along the frontiers of the several &&&&&&&& fields of science with which their park or monument is concerned. This can be done by establishing harmonious relations with research staffs of leading universities and other scientific institutions, and by studying current periodicals in several branches of science. When the technologist, alert

To the happenings in science and himself a trained investigator, is also an inspiring leader, teacher and guide, he then becomes a scholar. We should keep these facts in mind in selecting the staff that mans our museums and general educational work.

While we're on this matter of Education and Conservation, here is a Report of Wild Life Conditions in Bandelier National Monument, submitted to the Director by George M. Wright, Chief of the Wild Life Division. Bandelier is among the newest in the monuments group and the information in this report will give some of you greater acquaintance with this newer of the monuments. There's nothing cloudy in these facts that get right to the point on problems there. The report follows:

"On June 20 Bem Thompson and I made an inspection of Bandelier Monument. We were accompanied on this trip by Mr. Pinkley and Mr. Vint. We were guided by Ranger inCharge Ed Rogers.

"The following observations bear on the development of this Monument:

1. Bandelier has greater wild life potentialities than any other monument of the Southwest.

2. In developing the whole ethnological story of the Southwest as it is exemplified in our monuments and parks here will be found the best opportunity to show living examples of the animal and bird species that were part of all the early cultures.

3. The luxuriant growth of box elder, cottonwood, alder, willow, and other ##### trees and shrubs which fairly buries the clear stream of cool water in Frijoles Canyon is perhaps the greatest charm of Bandelier and certainly the factor which will contribute to the comfort and pleasurable relaxation of visitors above all else.

4. Though there are many species represented in the wild life of the Monument, the fact that wild turkey are present in winter is so important as to overshadow all others. North America's great game bird is scarcely represented in our parks today, and a good exhibit of the famed Merriam turkey of the Southwest is particularly desirable.

5. Cattle range in the Monument and are reported to be very destructive to the ruins when they seek shelter close to the cliffs during storms.

6. The concessioner wages a steady warfare on hawks.

7. There is a strong suspicion of poaching in winter. There is no ranger assigned to the Monument during that season.
#.

In view of the conditions enumerated in the above seven points, we strongly urge the following for immediate administrative action:

(1) It is most important that a ranger be on duty at the Monument throughout the year. Another winter should not pass without this step being taken.

Some of the benefits that would accrue would be:

(a) A year-round observational record of wild life and particularly of wild turkeys will then be available.
(b) Cattle damage to the fast perishing ruins will be eliminated.
(c) Poaching and disregard of other park rules governing birds and animals will be stopped, whereas at present the ranger in charge can have little effect. Knowing that during the critical season when protection most needs enforcement there will be no one there, what can the ranger do to stop abuses even while he is on hand ?

(d) No attempts to make reintroductions seem advisable until there shall be year-round protection of the Monument, until existing forms are put on a satisfactory basis, and until the development plans ###### for the Monument are fully understood.

In a single season beavers might do irreparable damage to the stand of mature broad-leaf trees that is one of the glories of the Monument.

All these matters were thoroughly discussed with Mr. Pinkley and Mr. Vint, and this report as written is intended to embody our mutual conclusions.

Respectfully submitted,

George M. Wright"

Walt Attwell has visited most of the Monuments of the Southwest. A letter that follows was received a few days ago which The Boss releases for purposes of this section. Perhaps someone can come forward with a guess as to what is the matter with Walt. Probably Julian is the most competent in our circle to diagnose the case:

Walt writes from Wind Cave as follows: "Dear Pinkley:

"I arrived at Wind Cave July 2 in a somewhat psychoneurotic state though upon cursory examination the medical students on the seasonal ranger force suggested the possibility of schizophrenia, psychochromaesthesia and psittacosis. The Studebaker got me up here with no special trouble. There were, it is true, frequent sounds of internal dissension which only the most delicately shaded onamatopoetic language could describe. My Mnemotechny is, in fact, inadequate to bring them all to mind. I was also so alarmed at times by the weakness of one of the tires that Freeland suggested the possibility of suspending a quantity of paradichlorobenzene from the upholstery to counteract the unfortunate impression one received on entering the car. I myself felt that the same ########## purpose would be served, and more esthetically, by introducing into the compartment bouquets of iris and lilies, beautiful monocotyledonous flowers which bloom profusely in the Black Hills.

"I met Mr, Gable from the Washington Office, while at Wind Cave. While there are those who feel that the President speaks disestablismentarianismistically and acts accordingly, Mr. Gable believes that the Park Service will not suffer thereby and that we may all dismiss the fear of ending our days in eleemosynary institutions."

P.S. Leaving for Devils Tower in the Morning." Walt"

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AND NOW the Boss is moved to remark that Bob has done a good job down to here and then turned the Supplement over to me to finish on a hot afternoon when it is over a hundred in the shade and I am just in off a field trip and as dry as a powder horn as far as interesting facts are concerned.

ANYWAY, Bob slipped up one time when he was worrying about a cover page. He might have known old Ed Rogers would come pinch hitting along with a first class job like he always does. And so we have an El Morro front cover this month, showing the Inscription Rock itself and a couple of the old inscriptions.

The inscription in Spanish is known as the Onate inscription and dates from 1606. It runs as follows:

Paso por aqi adelantado don j^{o}u
de Onate del descubrimento de la mar
del sur a 16 de Abril de 1606.

Translation: Passed by here the Governor Don Juan
de Onate from the discovery of the sea
of the south on the 16 of April of 1606.

This inscription needs a little back-ground before it can make the proper impression on you; as it stands, it is just a plain statement of

FACTS, but there is a world of romance behind these facts which can only be understood with a little explanation.

Here, on the 16th of April, 1606, while your friend Shakespeare was still very much alive and hardly known outside his little circle of immediate companions, came a bunch of hard riding, weather beaten men who had straddled their horses and left the Rio Grande behind them the previous year. They rode west and south where folk tales said there was much water. They came by way of Acoma, where they climbed that same trail we climbed a few weeks ago; by way of El Morro and Zuni going on to the Hopi Villages, and then jumping off into the unknown they crossed the Little Colorado and went down through the Prescott country; struck the Colorado and followed it to the Gulf of California. Here they began retracing their steps and on the 16th of April arrived at El Morro, saddle sore, worn and weary. About sixteen hundred miles of hard riding behind them, about two hundred more to go. they stop and take the worn and broken gear off their animals and turn them out to graze and rest. Camp was made near the pool which was 'round like an orange' and which Mr. Vogt cleaned out and restored a few years ago. One of the men, more educated than his fellows for he could write and most of them could not, wandered along the cliff a hundred yards or so from camp and, taking out his steel stiletto he cut his story on the rock. How simple it sounds: "Passed by here the Governor Don Juan de Onate from the discovery of the sea of the south on the 16 of April of 1606." Sixteen hundred miles in the saddle and that is all he has to say about it! And today you can hear at any gas station along the highway thirty mailes to the north how terrible the roads are and how the tourist has to suffer in traversing this forsaken country. So your tourist speeds through a country filled with romance and grows enthusiastic over the missions of California which were founded 163 years after this inscription was placed on El Morro.

I spoke of a couple of inscriptions in Ed's drawing. The other is the pictograph over which the Spanish inscription was carved. It was probably put on there a hundred years or so before your friend Columbus was born. There are some ruins up on top of the rock which are at least that old and before we get through with our researches at that monument I feel sure we will find evidences of something really old; way back of the large ruins which are so evident.

Note how Ed has conformed to the old style of Spanish lettering in his title. Pretty good work, I call it. Thanks, Ed.

And so we come to the end of this report and the end of the month of July, 1933. It has been a good month; we have had a lot of work and a lot of fun; now for the big changes of August and may both the work and the fun continue.

Cordially,

The Boss

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DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

STATUS OF PERSONNEL

Western National Monuments for the Month of July, 1933.

	This Month		This Month Last Year	
	Appointed	Non-Appointed	Appointed	Non-Appointed
employees beginning of month	28	1	30	3
additions	0	23	0	23
	28	24	30	26
separations	0	23	0	23
employees close of month	28	1	30	3
promotions during month	0	0	1	0
amount of annual leave taken	30	0	0	0
amount of sick leave taken	0	0	30	0
amount of leave without pay	4	0	0	0

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

S T A T U S O F P E R S O N N E L

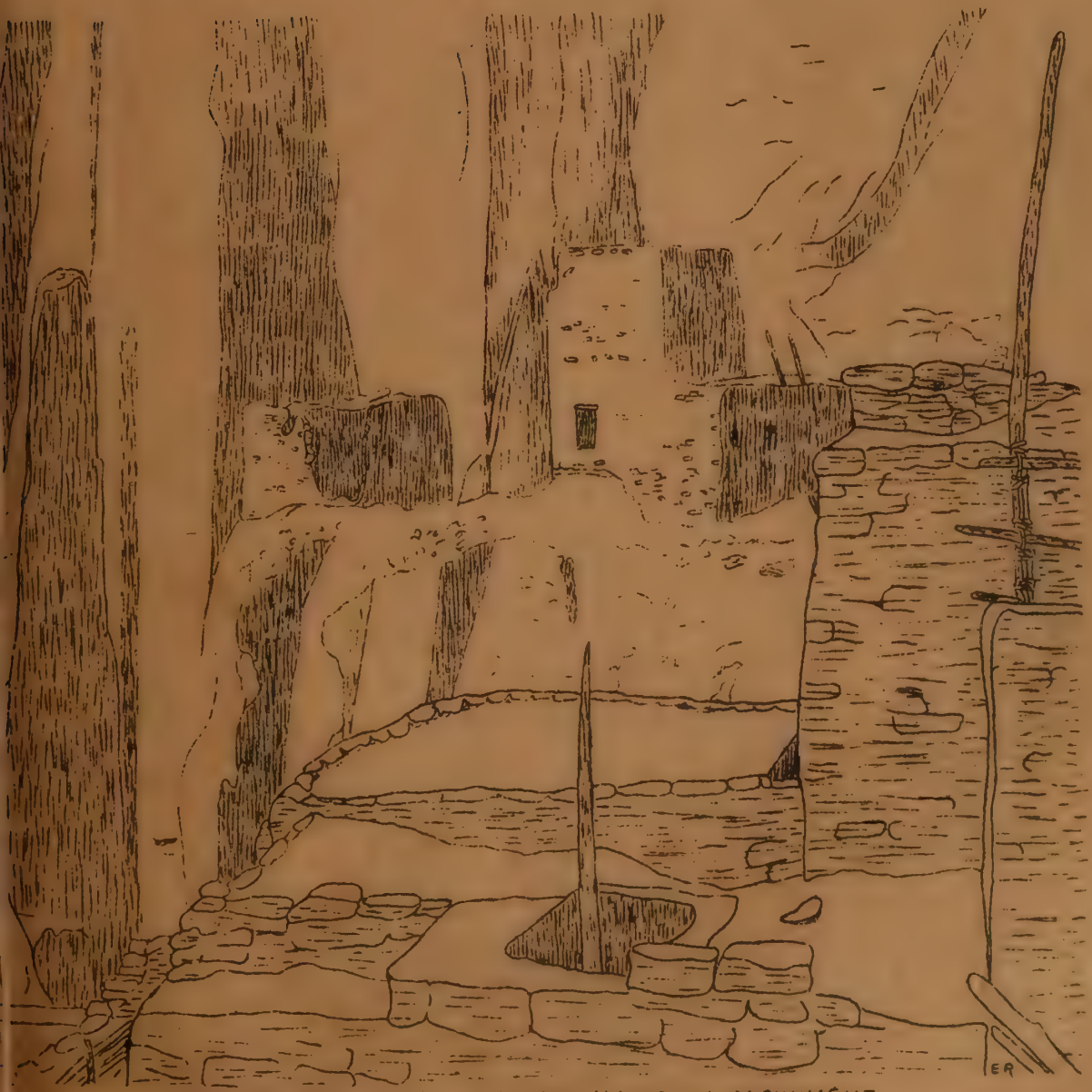
[illegible] National Park for the Month of [illegible]

	This Month		This Month Last Year	
	Appointed	Non-Appointed	Appointed	Non-Appointed
[illegible] of employees beginning of month	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] of additions	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] of separations	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] of employees close of month	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] of promotions during month	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] amount of annual leave taken	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] amount of sick leave taken	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] amount of leave without pay	[illegible]	[illegible]	[illegible]	[illegible]

SOUTHWESTERN MONUMENTS

MONTHLY REPORT

AUGUST — 1933



BETATAKIN RUINS - NAVAJO NATIONAL MONUMENT

FOREWORD

To our new Director:

This is the first monthly report we men of the Southwestern Monuments have the pleasure of making to you as Director. May it be the first of a long line of reports reaching down through the coming years!

Some of us have worked with you for about fourteen years and you have bound us to you by your patience, kindness and courtesy. We are your men and we will back you with our money, chalk or marbles. We know the duties we owe to the Government and I believe you will find we will fulfill them always to the best of our ability, but I wish you would feel that after our official loyalty to the Director is given, there is a personal loyalty to you which we wish you would call upon when things look black and you need some extra service not called for in our regular line of duty; you will get it promptly and it will be delivered with a smile.

Cordially,

Frank Pinkley

Superintendent.

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FOR
THE SUPPLEMENT.

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF NATIONAL PARKS
BUILDINGS AND RESERVATIONS
SOUTHWESTERN MONUMENTS

Coolidge, Arizona, Sept.1, '33.

The Director,
Office of National Parks,
Buildings and Reservations,
Washington, D. C.

Dear Mr. Director:

The month of August, 1933, has become history and it now only remains for us to set down what has happened among the Southwestern Monuments so that future generations may inform themselves.

Over the district as a whole there has been hardly the normal amount of rainfall. This was especially true in Northern Arizona where the range at the end of the month was dry and feed was scarce. The temperature in the southern half of the district was a little above the normal August heat.

The roads were good throughout the month as to the main arterial roads and the side roads depended upon the local rains, being good, bad or indifferent according to when the last rain had passed.

VISITORS.

Visitors to the monuments seemed to number about the same or a little less than last year.

Aztec reports 1,821, a slight increase over last year. Dr. Scott, with the Peabody, Dr. Frank H. H. Roberts, with the Bureau of Ethnology, Mr. Charles Amsden, with the Southwest Museum, and Dr. Breasted, with the Oreintal Institute of Art, of Chicago, were among the well known names to be recorded on the register during the month.

Bandelier had 959 visitors, an increase of 13 over August, 1932. This was also an increase over July, '33 and surprises us because we had figured that July was the peak month at this new monument of ours. One unusual visitor - a blind woman who walked down the trail and enjoyed visiting the ruins in the Canyon under his direction.

Chaco Canyon had 1,262 visitors, a material increase over former years, partly explained by a different method of checking visitors, but with due allowance for that, showing a good increase. The Jemez Field School of the University of New Mexico, the McGregors, of the Museum of Northern Arizona, and Dr. H. B. Leman, of the University of Chicago, are especially mentioned.

El Morro had 579 visitors. This is under the average monthly attendance for the summer of 1931.

Gran Quivira had 523 visitors, an increase over the previous month.

Montezuma Castle had 1,843 visitors, a slight increase over the same month last year.

Pipe Spring had 285, a drop from last month and a considerable drop om the 450 for the same month last year.

Tumacacori had 689 as against 1016 last year.

White Sands had 16,540 pass through and about 3,000 stopped to visit.

Casa Grande had 1,036 as compared with 1,281 last year.

Capulin. Had about 1,800 visitors, a little less than half as many the same month last year.

This gives a pretty good cross section of the visitor situation in the strict and other monuments not reporting would not change the drift of it we could get their figures.

GH LIGHTS.

At Bandelier the State Fish and Game Commission planted 3,000 tive trout in the little stream in Frijoles Canyon. Tent caterpillars, ich seem to be getting worse from year to year, were spoiling the beauty the green trees along the bottom of the Canyon with their unsightly webs. ng tailed cats, foxes, squirrels and chipmunks are reported on or ntioned by Mr. Rogers.

At Chaco Mr. Julian thinks a part of his increase of visitors is due to e close harmony maintained between Chaco, Aztec and Mesa Verde, which re- lts in sending the visitor along the line, much to his additional pleasure. . Julian also reports tentative plans for an archaeological exhibit at the llup Ceremonial next year.

At El Morro Mr. Petersen reports the death of Bosco. The roads are pass- le but not good. The water supply is plentiful. Settlers in the neighbor- od are busy with bean and corn crops.

At Gran Quivira paths have been cut through the woods to the great com- rt of the lady visitors. Highway signs are up on all the roads in that rt of the State leading to Gran Quivira. (Attention Mr. Albright.)

At Montezuma Castle a recent bird check reveals 87 kinds of birds. ail and doves are plentiful. Hen and toad are hatching some eggs. A ttlesnake visited the museum.

At Pipe Spring it has been hot and dry. Vegetation is drying up. y have an early winter; birds which ought to show in September are present August; ducks, blue jays, finches, cedar birds, humming birds.

At Tumacacori they had two good rains during the month but the grazing nds on the ranges are in bad shape. Indians holding ceremonies in the elds to make the corn grow. Hatching frog's eggs for visitors.

At White Sands. Ten tons of sand being carried away each month.

At Capulin. The road up the mountain is in bad shape.

At Casa Grande. Chief Clerk quarters being renovated. Ice water for the blic. Mr. Miller arrives. Mr. Evenstad transfers to Tumacacori.

Although visitors have dropped at many of the Monuments as is shown in e above summary, and travel does not seem t be as heavy on the through ads, business through the district seems to be on the up grade. Part of is is no doubt due to the general hopeful attitude that things are going to t better, but many business men have told me that they are actually doing tter than theywere a year ago.

The detailed reports of the various Monuments follow:

AZTEC RUINS NATIONAL MONUMENT
(Johnwill Faris)

"Prepare yourself for a great shock. Visitors for the month actually ceed August of last year, this month's total being 1,821. Three months so r exceed those of last year; March, April, and August. We are pleased over e increase for this month and trust that it is an indication that the dull ys are over.

" Both Thompson and myself are fortunate this month in that we have had so ny visitors that are making a deep study of our line and then too, Earl Morris s been here the most of the month and has been present with a number of the rties and we have had the advantage of their comparisons and experiences. In is connection, I want to say that this will probably be the last report that will make to your office with Earl Morris still with us here at Aztec, and I ink it is only fitting that we endeavor to express our gratitude for his most yal and sincere interest.

"It has been my pleasure to have been Custodian of this Monument for about ur years and much of that time Earl Morris has been here on the grounds. I nt to say that never in my work have I found any one who took more interest the Monument or went out of their way more to help in the work than Mr. and s. Morris and Earl's mother. The three of them have been constantly ready d willing to aid in any way possible and never once have they shown the least luctance in answering any of our numberless questions or giving us any information that they might offer. To lose the Morris family is a decided loss to e Monument and we only wish that we might more fully express our appreciation their many kindnesses. This attitude is also that of both Dorothy and my nger Thompson. We wish them happiness and good fortune wherever fate may rry them. May other people be as good to them as they have been to us. Then know they will fare well.

"Some of the men we have had with us this month include Dr. Scott, with e Peabody; Dr. Roberts, whose work is most valuable and interesting to us in is section; Charles Amsden, with the Southwest Museum; and tomorrow we are oking forward to a visit from Dr. Breasted, of the Oriental Institute of Art, Chicago. To come in contact with these men and hear their comments is really education in itself.

"Some men closer home include Evenstad of the Southwestern Monuments, who r the first time made us a visit this month; Getty, with the tree ring folks, ose work we expect to reveal some very important facts; Deric Nusbaum was with for a few minutes and we hope that he will find it possible to get back and ing his father with him; Charles Richey and his wife were in for a visit and will have to hand it to Chuck. He is, from all appearances, just as ficient in the art of choosing a wife as he is in the art of designing and awing.

"August all in all has been one that the Aztec Ruins will long remember
being one of its most pleasant months from a number of standpoints.

"It was my pleasure twice during the month to visit the Mesa Verde National
and as usual the park force which Finnan has with him was the perfect host.
njoy every visit to the Park and only hope that they will not tire of us
ing in on them all the time. I have not been to the Chaco this month, but
to get out there this next month and enjoy another good visit with Hurst
Vinnie.

"With every good wish to you all and a most "Cordial Welcome" to Miller
the Aztec Ruins National Monument; also a hope that he will not wait four
s to see us as Martin did, I am, very truly,

JOHNWILL FARIS"

BANDELIER NATIONAL MONUMENT
(Edgar Rogers)

"Have 959 visitors to report this month - a surprising increase of 13 over
st of last year. It is also an increase over July, which last year was
peak month. I think much of the credit is due the new road signs from
a Fe to the Monument. These were placed by the Highway Department on July
r 27. Also, a large group from a boys' camp were here this month, who came
uly last year. This was a group of 69 from Roundup Lodge, Buena Vista,
rado. An unusually well-behaved group of 16 boys was in from Los Angeles.
were in charge of a Mr. Bogart.

"A blind woman, apparently well along in the sixties in age, walked into
Canyon and also out again. She seemed to have had a wonderful time 'seeing'
ruins.

"The State planted 3,000 native trout in the Rito during the month.
shoppers are again here by the millions - at least there appear to be
ions. If as many were here when the Old People were trying to raise a crop,
s no wonder they left. Of course, in a case like that, you might just eat
grasshoppers. More attractive are the many butterflies. There has been
rge number and variety this summer. Tent caterpillars are very bad. From
reports of the hotel operator they have been getting worse from year to year.
e are hundreds of them now, which spoils the beauty of the green trees
g the stream.

"One afternoon I saw a ringtailed cat inspecting holes in the cliff above
foot of the trail. He was about fifty feet up and seemed to be enjoying
elf immensely. A canyon wren was bawling him out, but I don't know whether
ad been fooling with her affairs or not. Another evening at sundown I saw
ey fox at the back door of the Ranger Station, where scraps are thrown out
squirrels and chipmunks. Fox tracks are seen there and elsewhere in the
on quite often.

"Have had many rains this month, although only one was heavy and general. ve had showers each of the last four days.

"Superintendent Pinkley, Mrs. White Mountain Smith," and Mr. and Mrs. hey were visitors this month."

CHACO CANYON NATIONAL MONUMENT
(Hurst R. Julian)

"The 1,262 visitors to the Chaco for the month ending August 25 came from states, the District of Columbia, Scotland, Italy, and England. Many of r visitors came with greetings from Mesa Verde and from Aztec. We wish to blicly acknowledge the interest and assistance which we received from those o units of the Park Service particularly. After all, anyone who is interested either of the three great archeological centers of this region would be terested in the other two, and it is with little difficulty that visitors e induced to visit all of them. With greater pleasure, however, do we receive e compliments which are casually given the service rendered at the other places en a party of visitors arrives with praise for the treatment received at tec or Mesa Verde, our battle with them is half won even though we can only ve them a smile and a few minutes instruction.

"Mr. and Mrs. Richey were with us about long enough to get a line on me of the things that they should come back and look at. The Jemez Field hool of the University of New Mexico stayed a couple of days. The McGregors the Museum of Northern Arizona, our Martin Evenstad, and the party headed Dr. H. B. Lemon of the University of Chicago about complete the list of stinguished visitors.

"The report on the matter of the investigation and excavation of the iff Cavities which was suggested in the comments on the July report will be mpleted soon. At the request of the Smithsonian Institution we are preparing complete report on the work as far as it has progressed.

"An invitation from the Gallup Inter-Tribal Indian Ceremonial Committee ok me to Gallup for the 23d, 24th, and 25th of the month. Naturally I was eased that they should have desired my attendance and since they even had hotel bill paid in advance of my arrival, I was very flattered, especially th government salaries being what they are.

"An outgrowth of this trip were tentative plans for an archeological hibit at the Ceremonial. Mr. Gladwin of Gila Pueblo came forward with his ual hearty cooperation on any Park Service project and offered assistance an elaborate sort which we hope to be an improvement on at least one hibit of similar nature at the Chicago Worlds Fair. Dr. Hewett plans a etro Ketl Exhibit, and now if I can induce Johnwill Faris to give us an Aztec hibit, and Mr. Finnan and Mr. Frank of Mesa Verde to represent their Park,

ut all there will be left for me to do is to act as a nominal head and anizer with someone else furnishing all the work and brains. This matter l be discussed in detail at a later date, after the plans are worked out a tle better.

"A valuable collection of materials was accidentally discovered by Harold kness, formerly of Carlsbad Caverns. This too came in too late for dis-sion in this report. Among the materials discovered were some of the best mples of weaving and early pottery that we have. Another of my beloved extremely rare knots (a double beckett bend) and most remarkable of all ls for the summer were five jet buttons of extraordinary fashion."

EL MORRO NATIONAL MONUMENT
(Evon Z. Vogt)

Mr. Vogt comes in with his usual good general letter, which is as good newspaper in giving us an idea of what is going on in northwestern New ico.

"The later part of July and the first week of August were rainy months these parts. Roads were washed out, bridges taken away at places, and rists stuck repeatedly. The crops benefitted, however, and the grass has a most wonderful growth. It has been many years since we have seen the ing grama grass so tall and stately with a month's growing weather still nising even greater growth.

"This grass growth all hooks in to the economic welfare of this country most vital way. With all the arroyo plugging and water development going t the same time that the grama is reseeding the range there is a change in t which will for years reflect the wisdom of the pioneering work being by the Indian Service in our region in those measures which will do so for the live stock of the Indians as well as others living in the same er sheds.

"At El Morro I have never seen such a luscious condition of the natural wth of grass, flowers, and succulent weeds. Under such remarkable advance the feed I always feel that the obnoxious weeds and useless ones like pinguo, , and snake week lose ground in favor of the more helpful vegetation.

"In fact the feed every where is so nice that it is a pleasure to ride ugh it. Like a cow puncher said to me, "It seems like a waste of time e anything else but a cow or sheep when there is so much to eat." One son, sometimes overlooked, for such fine earth covering, is that sad hard er of 1931 when so many sheep, cattle, horses, rabbits, and other browsing als died in the snow-locked land and bitter weather.

"While tourists have been fewer in number it seems to me that we have very interesting ones and very interested ones. Amont the finest we have

at El Morro are Dr. and Mrs. Winton, who spent several weeks at our Monu-
t after coming from their school, the Texas Christian University of Fort
th.

"A few days ago they arrived here again after a long trip covering Bryce
yon, Zion Canyon, Grand Canyon, Canyon de Chelley, and other points in our
tem of Parks and Monuments. We were glad to have them back and hear of
ir trip. One night we joined them and Mr. Peterson at El Morro in a combi-
ion picnic and moving picture treat. Dr. and Mrs. Winton have taken many
ms of the Indian country which they projected for us on the screen. They
rate their machine from their car in a most successful way.

"We felt pretty badly about the way our effort to entertain the C.C.C.
s from the Zuni Mountains turned out since they came unannounced despite
fact that we asked them to let us know when they would visit us, so we
sed seeing them altogether.

"The names and initials they carved on the rock were removed a few days
er the defacement. Ranger Peterson handled the case very well and wrote
irm but diplomatic letter to the Commanding Officer so that the men came
k and took over their names very promptly. I enclose a clipping from the
uquerque Journal covering this incident which you will want to read.

"While speaking of newspaper stories, I want to say that I have enjoyed
ding the Chaco Canyon stories that Hurst Julian has been writing for the
lup Independent. The one about the old irrigation systems was the most
eresting to me and increased my desire to visit that wonderful canyon again.

"While passing through Thoreau we noted the nice new signs that Mr. Julian
had placed on the highway, directing the public to his Monument. We wish
could have some signs like that for the Grants entrada, as well as for the
e-off of the road at Gallup.

"During the month I made a trip to Los Lunas and Albuquerque and was
tunate to have with me as a guest passenger in my car Mr. George Lusk, who
traffic manager of the T. W. A. air line which flies so many planes over
Monument and on past the Petrified Forest to Winslow. You will recall
t some months ago I advocated the marking of the National Monuments, Parks,
est Reserves, Indian Schools, and Agencies, and other government institutions
such a way that the air traveller would be able to tell at a glance what
ces he was riding over. Mr. Lusk agrees with me and thought that it would
a fine thing to have such places marked by large lettering which might be
le by whitewashing stones forming the names of the places. Perhaps yellow
ld be a better color. I still think that this should be done, that it
ld be done in odd moments with very little expense, and that by marking
se places not only would the interest of the traveller be greatly increased,
t it would add greatly to safe flying.

"I had great difficulty in holding myself down that Sunday that Director merer was at the Mesa Verde when the play was given. We all wanted to go so ly to the Mesa Verde to see Mr. Cammerer again and to see the Finnans and other fine friends there, not to mention the play, which would have been a at treat to us. But the distance and the expense cooled us off, so we stayed home. Afterwards I received Miss STory's letter, so I now know that we sed more than we realized at the time.

"The Indian Service(s work program seems to be going in full swing now. has already helped business a great deal. I was out the other day at a where there are 45 Navajos at work diverting the flood waters from two leys with great long canals into Carrisso Lake, where they have a fine ural basin for water storage for their sheep. As to road work under the lic Works Act, we are still in great doubt and feel like we are unable to uch more than we have to convince the highway commissioners at Santa Fe the needs of this region for roads as well as employment. I hope that a l will be built from Grants around to Ramah via El Morro and that we will get an extension from El Morro to Atarque and on to Salt Lake.

"We sincerely regret that you did not get out to see us, especially when Story and your son and daughter were with you. Please come soon as it "long time no see" and we feel the need of new inspiration.

I forgot to comment on the drawing of our great cliff on your last month's ort and the fine write-up you gave us on the last page. It was fine, all t, and I have passed the report around to others who have enjoyed it."

Mr. Peterson, in his regular monthly report for August has the following say:

"For the period from July 28 to August 27, inclusive, El Morro has had visitors, representing 24 states. This is the largest number of visitors for month this summer, but fails to reach the average monthly attendance for the mer of 1931. A Civilian Conservation Corps camp, working on the road ough the Zuni Mountains northeast of El Morro, paid a visit which brought one hundred in one day, and the Inter-Tribal Indian Ceremonial, held in up, has been instrumental in bringing many desirable visitors to this ument. Two Hunter-Clarkson Courier cars were here during the month; and of them lost their way, because of rather poorly marked roads, and ally came around through El Morro Airport and came into the monument from south instead of from the west.

"Enclosed is a clipping which shows the article I prepared for the monial Edition of the Gallup Independent. Inasmuch as the first few graphs are my original work, and the balance is your own remarks about Onate inscription, I'm not pinning any medals on myself for this article. remarks about the tourists hurrying through to California were too aptly icable to the type of information one gets about these roads in GAllup

pass by without bringing to the attention of Gallup people.

"The Civilian Conservation camp above referred to arrived while I was over Ramah after mail and supplies, and I arrived back at the Rock just as they t and found over thirty names and initials added to the inscriptions. Forately none of these were in the vicinity of the old Spanish inscriptions. etter to the commanding officer brought back two truck loads of young men following Saturday, and they very efficiently removed their names without great defacement of the Rock. Enclosed is a clipping from the Albuquerque rnal which gives their interpretation of the memorandum I made up for the ss and had Mr. Vogt OK and mail.

"Bosco, my pet rattler, is dead. Some half-baked visitor crushed his d with sticks and stones while I wasn't in the immediate vicinity. The dence indicated that they had an awful time killing that helpless snake, nearly wrecked the cage during the struggle. I had thought that I would e the snake over to the University to Dr. Vorhies. Anyhow, you haven't reason now for spoofing me about taking up with rattlers for company.

"But I've had some good company. Dr. and Mrs. W. M. Winton, of the T. C. U., t Worth, Texas, came back to El Morro from a stay at the North Rim of the nd Canyon and trip through the desert around Phoenix, reached here about the h and stayed until the 20th. By request Vogtie and I accompanied them to Ice Caves and took part in some motion pictures they took of the ice and e beds.

"Roads in the vicinity of El Morro are not good, but the local people, course, do not consider them at all bad when a car can get through without use of tire chains. We have had some rains, but the roads are not wet at sent. The greatest fault visitors find is that the roads are rutty and gh.

"The reservoir in the Water Cove is well filled and usually is admired the visitors - until they consider that as a source of drinking water. They nk of it more as a place for gold fish or for a swim.

"The local settlers are busy with their bean and corn crops. I am on to friendly terms with practically all the local people, but it has come to that the most troublesome man in the vicinity made the suggestion, the first mer I was here, that a group of them come up here some night with their guns 'smoke me out.' That is the general attitude of bootleggers and similar eds toward any government man. He did not get any volunteers, but what fun d have had! I had a good watch dog to warn me, although I was sleeping in open, and I was not unarmed. I have too many friends in the neighborhood for any such thing to happen.

"I slipped away rather late in the afternoon of Friday, the last day of Ceremonial, and went to Gallup to take in the show. Saw Ranger Reid, Mrs. d and daughter, and another Ranger (name not recalled just now), and had

a chat about the question of future appointments to summer jobs.

GRAN QUIVIRA NATIONAL MONUMENT
(W. H. Smith)

"For the month ending August 20 I have registered 523 visitors entering onument in 102 cars. This shows an increase in travel over last month.

"Weather conditions have been favorable for travel the greater part of onth. There were some heavy rains in the first half, but no particular e done in the park. Late in the afternoon of August 17 a terrific hail about three miles east of here which is reported to have ruined bean crops everal neighbors.

"August 17, 18, and 19 were spent in weed cutting at the Monument. We able to clean up the New Mission and plaza, a narrow strip surrounding ission, and the trail through the Indian pueblo, as well as the plaza of ndian village and the Indian rooms and kivas that are excavated. This d quite a little, but we still have some left. It did a great deal of toward eliminating the trouble that the Russian thistles give our tourists they have to wade through them.

"On July 27 I drove over to Santa Fe in behalf of the highway that is considered from Denver to El Paso via our monument and the lava beds west rrizozo, and the White Sands. Should this road be granted it will mean to our monument than any thoroughfare we have.

"Mr. Wm. Rose of the State Highway Department distributed the Gran Quivira nent highway markers the 23d of July. He has placed a marker at all places one might get confused in all directions from our monument. One can ely imagine the help this means as we now don't have the visitors coming about finding the monument."

MONTEZUMA CASTLE NATIONAL MONUMENT
(Martin L. Jackson)

"During the month of August Montezuma Castle has received 1843 visitors, h represented a slight increase over the same month last year. Of these, made the climb through the Castle. Thirty-three states and 3 foreign tries were represented. Roads are in good condition generally, with the ption of the Black Canyon route, which is reported to be rather rough. had several good rains in the region lately, although they came so late le forage has suffered.

"With only one ranger and myself to take care of them, we have had the e largest days for actual registrants in the Castle in 3 years, with 119 one 91 another, and 90 the other. Several visitors, after asking about our

endance, have expressed wonder that we can handle the situation with two when theysay several other places have a much larger ranger personnel in portion to the number of visitors received.

"Had a visit from Mr. Hugh Miller, the new chief clerk, recently, and, less to say, enjoyed his brief stay. Mrs. Curry has turned painter again, has been painting the bathroom and the woodwork in the bedrooms of the ger's house.

"Prospects for the long proposed Paradise Valley dam project on the Verde er are the most favorable in 15 years, and it seems that at last something going to be done about it. It will be taken under by the Reclamation Ser- e. If built, this dam will reflect considerable benefit to the Verde Valley.

"Of interest to nature lovers is the recent bird-check made by Ranger ry. He has succeeded in identifying 87 different kinds of birds here on the ument and says there must undoubtedly be many more, especially migratory ds which make the region a temporary stopping place.

"Our front yard is becoming a veritable stomping ground for the Gambel il and the Whitewing dove. We feed them grain, and they become so convivial t when the duties of lovemaking and contingent quarreling are over and their spring have developed growing pains and empty craws, the whole bunch gather in near the doorstep to live off the fat of the land - and the sweat of the w, too, if they keep increasing another year. It's kept me busy for 25 years ing to feed one family, much less the feeding of Gambel mendicants from the le countryside.

"Illustrative of the wealth of associations engendered by the wholesome heterogeneously democratic environment caused by proximity to the Castle ain was the action of two of our denizens recently. We have a game chicken - en - setting on some eggs in a box under the trees. She has been setting re in contemplative solitude until the other morning when we observed a large equally philosophic toad harmoniously sharing the nest in what I dare not signate connubial, but rather platonic affection and dignity.

"Our museum seems to have taken on some unusual attraction outside the ere of human interest, for yesterday a large diamond-back rattlesnake in the resplendent beauty subsequent to the shedding of his old skin, sought gain entrance through a window. We were forced to hastily execute this gerous visitor, thus performing the first execution of a visitor in the eum area."

PIPE SPRING NATIONAL MONUMENT
(Leonard Heaton)

"Our travel has not been what it was last month as to the number of itors - total of 285 - but we have had some very interesting people here,

many of the old timers that came into the country when they were young and country was young. I don't remember a year since I came here, seven years last February when there have been so many of the old settlers come to it the fort as there have been this summer.

"Our weather has not improved any over last month. It is still hot and h dryer, no rain to speak of here and south of us. Not only the grass and sh in the flats show the lack of rain, but the trees around the ponds show their leaves that we have had some very hot weather. The leaves of the ver maple and alanths are only about half the size they should be. The le leaves are curled around the edges as if scorched by fire. The rest of tree leaves are in about the same condition.

"I don't know whether it is a sign of an early fall or not but to-day I a flock of 25 mallard ducks, blue jays, finches, cedar birds, and humming ds. These birds usually do not make their appearance here until September later. I surely hope that our fall is late for if not there will be a lot crops lost and a shortage of winter feed for the live stock this winter.

"I had some boys clean the dirt out of the attic of the upper house this k and they carried out two big wagon loads. It seems that after taking the t off the ceiling, partition walls, and the upstairs floor raised up about inch and a half, causing cracks to appear in the walls and ceiling, but much damage was done as yet. Only a foot square of plaster came off."

TUMACACORI NATIONAL MONUMENT
(George L. Boundey)

"Visitors for the month - 689.

"We have had two good rains during the month, but most of the grazing l is still in poor shape because of dry weather. In the mountains to the t of us water holes have dried up that have not been dry for many years.

"For the past two months the Indians here have been holding many cere-ials in the fields to make the corn grow. The stalks of the corn are un-ally large, but with practically no ears on the stalks. The ceremony con-sts of singing, dancing, and exploding large quantities of dynamite.

"One of the most interesting visitors I have ever had here was an old ian Scout who knew both the Patties, father and son, and also Paul Weaver. gives many details in the killing of the elder Patty not given in the stories.

"We have been hatching many frogs eggs in the vat in front of the Mission visitors may now see every stage of the frog's development from the egg to finished frog.

"Not having cattleguards at the two entrances to the parking place we are much bothered with the neighbors' cattle, horses, and pigs pasturing on mission grounds. I took a half sack of sawdust and made a big show of ing some at the entrance to each squirrel hole, then I put out a sign,

oison out for Squirrels,' and we haven't been bothered since."

WHITE SANDS NATIONAL MONUMENT
(Tom Charles)

"Your request for a 'report' seems to carry with it the idea of conveying formation. By no stretch of the imagination can I believe that you are as rely in need of information from the Custodian as he is in need of information om you.

"A local resort publication wants a column story on the Great White Sands once. What shall I tell him? A radio station offers to tell their steners of this 'natural phenomenon' free of all cost to the Park Service. e Hotel Hussmann of El Paso wants government bulletins. 'I am interested in e history of this monument,' writes the secretary of the celebrated hostlery. quoting a man from Carrizozo, another writes, 'One thing he sed was that simply powering hot water on this White Sand, that it would set quickly and ke, what he claimed was verry high grade Granit.' Another complains that a ttler at the Sands sold him alkali water at 25¢ a gallon, the same making him athly sick. On and on, the work piles up and the government still insists its 15% cut on the $1.00 per. When you said it would be 'little pay and lot of fun' you were 50% correct, Mr. Pinkley.

"By the way, why do the custodians all start their reports with the mber of visitors the past month? Am I supposed to count them? Would it be ier the fun or the pay? Well, here is an estimate. The highway department unt showed 138 cars through the Monument daily. In the month it would be ,140 cars. With 4 people to the car there would be 16,540 visitors this month. addition to these, it is estimated by the Chamber of Commerce that an erage of 20 car loads picnic at the Sands daily. With 5 people to the car would make a total of 19,540 visitors. Each visitor will carry away 1 pound white sand in shoes, pockets, and hair - 10 tons of sand per month! What drain for so young a monument!

"Since the area covers 270 square miles and geologists claim that there e 33,000,000 tons of crystallized gypsum on every square mile, we will be le to hold out until you get over to see us, unless the Las Cruces Chamber Commerce wins the road fight with the Bureau of Public Roads and the paved ghway through the White Sands Monument increases traffic tremendously.

"Since taking this job we have found that we have a big order. It seems ke there are a dozen different questions to answer and decisions to make ery day. It is our prayer that you may be able to come over soon and set right on the Park program.

CASA GRANDE NATIONAL MONUMENT
(H.F.Palmer)

Casa rande National onument again shows a decrease in vvisitors for month. Last August there were 1281 visitors, this August only 1023, a of 258 or 20%. Part of this loss is accounted for by the fact that only visitors who actually visit the ruins and museum under the guidance Ranger are counted while last year everyone entering the Monument, her they visited the ruins or not, were counted. These 1023 came in 299 , an average of 3.4 visitors per car. 66% came from Arizona, 9% from fornia, 6% from Texas and the remaining 19% from 26 other states, ngton D. C., Hawaii, and three foreign countries, namely, Canada, Japan Mexico. All of these 1023 visitors were personally contacted by Park ice personnel on 204 guided trips through the ruins of Compound A and museum lectures. The total travel to the Monument this travel year is 01 an increase of 90 visitors over the same period last year. Had we not ged our method of counting this year the increase would have been greater.

We have had the usaal amount of hot weather during the month. The mum temperature for the month was 116 and the minimum was 65. The average mum was 103.4, the average minimum was 74 with a mean temperature for the n of 88.7; every day day during the month registered over 100 degrees. was .73 inches of rainfall during the month spread over 6 days. 21 days clear, 6 partly cloudy and 4 cloudy.

I returned to duty on August 9th after 11 days annual and 12 days leave out pay during which time we visited the wife's family in Illinois and nded the Century of Progress.

The quarters occupied by the Chief Clerk Southwestern Monuments were ted during the month and prior to their occupancy by the Assistant rintendent Southwestern Monuments they are undergoing a complete redec- tion and repair job. This house was built in 1928 with very limited s and was never really completed. The walls which had been plastered adobe mud for economy have been painted in order to keep this plaster scaling off constantly; the base boards, which had shrunk away from the s and loosened in some places were repaired: the woodwork has received esh coat of paint and new linoleum will be placed on the kitchen and room. This work has been done with regular repair to buildings funds and from public works funds.

Funds were allotted to me during the month for the construction of a cooler for the convenience of visitors. I got some fun and a lot of and a world of experience out of that job. If anyone who contemplates lling a water cooler will communicate with me I can give them the benefit that experience and save them a lot of grief. However one piece of advise here; before you even pàan on your water-cooler get the proper location t from the Landscapers. What they don't know about the location

of water coolers hasn't been discovered yet. Anyway the cooler is finished, located according to instructions and functioning beautifully.

Upon notification that the Public Works Program funds were available for expenditure I asked the Branch of Plans and Designs to have Asst. Architect Harry"Landscape" Langley to come down and line us up on it. He came on the 20th and remained the 21st (that is when I commenced to get information on the proper location of water coolers). We will be unable to spend any of our funds except for campgrounds and water extensions until after decision from the Attorney General regarding Physical Improvements costing over $1500.00. While waiting for this decision we will be getting plans and specifications so that we will be ready to go immediately after receiving his decision if it is favorable. Work on the two projects not affected by this decision will be commenced next week. Workers are registering in large numbers for this work. The NRA program is in operation in all parts of this district and practically all merchants etc have signed the agreement but in these small towns it has not helped as much as in the large cities and as a consequence the unemployment problem here is acute.

Stray cats seem to be just as safe on the Monument as heretofore in spite of the fact that we have a new Chief Clerk. If I ever get rid of all these stray cats it seems that I will have to take to the field myself.

The month has been a satisfactory one except for the falling off in visitors but with the advent of cooler weather we hope that that will improve.

CAPULIN MOUNTAIN NATIONAL MONUMENT.
(Homer J. Farr)

Dear Boss:

I have the following report to make for the month of August as to the activities at Capulin Mountain National Monument.

The Custodian has been away for about a month about fifty miles northwest of this Monument, building a road from the plains to one of the numerous coal mines approximately two miles 'up' and this is the reason why I failed to make any report last month for Capulin. The Custodian has road fever and when there are no available funds for building roads or trails on the Monument, he just simply has to go somewhere else and build them.

The weather at this Monument has been exceedingly cool for August, with frequent showers but no general rains. Taking the year as a whole we have had only about one third of our usual rainfall. Now I am hoping we do not get it all in a bunch and ruin our roads.

We had approximately 1,800 visitors last month, a little less than half the visitors for the same period last year. I believe this drop in attendance at the Monument is due to the fact that the road has been almost impassable the past month and many very bad reports have been circulated about it. Some work was done on this road by the Custodian in July, but it is in serious need of considerable dressing and flow moving. Since old man depression has hit us up here, like most every one else we have been unable

to do what was needed without some form of remuneration.

We still entertain hopes of getting from some source sufficient funds to clear the road and build a trail around the rim of this Volcano this fall and at the same time relieve some of the distress caused by unemployment in this vicinity.

IN GENERAL.

The month seems to have been a fairly good one even with the reduced number of visitors at most of the Monuments. At no place were they reduced to the point where the men did not have their hands full, for, speaking in general, we give more service per visitor per man on the job than is or can be given in the average park. This is due to two basic facts: first, we are undermanned; and, second, a park is primarily scenic while a monument is primarily educational. This means that the visitor who comes to us wants to know about our ruins or our formations and wants educational service just as soon as he gets out of his car, whereas in a scenic park he wants to be let alone until he has passed through the inspirational phase of his visit and so many visitors do not stay long enough to pass through that phase and ask for educational service before leaving. This is why the average park makes a comparatively poor showing in its actual educational contacts.

Our annual report for the Southwestern Monuments goes out with this copy of the monthly report. The Washington Office copies went forward several days ago as well as the resume to be included in the printed copy of your annual report. We are aware that you allowed us until January 1 to get out the annual report but that falls in the middle of our busy season so we thought we would get it out on the date it was due for once.

We have been hammering on a lot of justifications this month. If we haven't any money this year, there is at least some satisfaction in talking about what we hope to have in 1939 or '40.

It has been fairly warm this month. 108 to 114 degree weather has been fairly common.

Cordially,

Frank Pinkley

Superintendent.

SUPPLEMENT TO THE
AUGUST REPORT OF THE
SOUTHWESTERN MONUMENTS
****

Dealing with folks and things of
general interest to all of us.

Some time ago Mr. Peterson, of El Morro, worked out a board for the housing of his translation signs which was so good we asked him to write it up for the Supplement. He finally got time to do it and his description follows:

"Dear Boss:

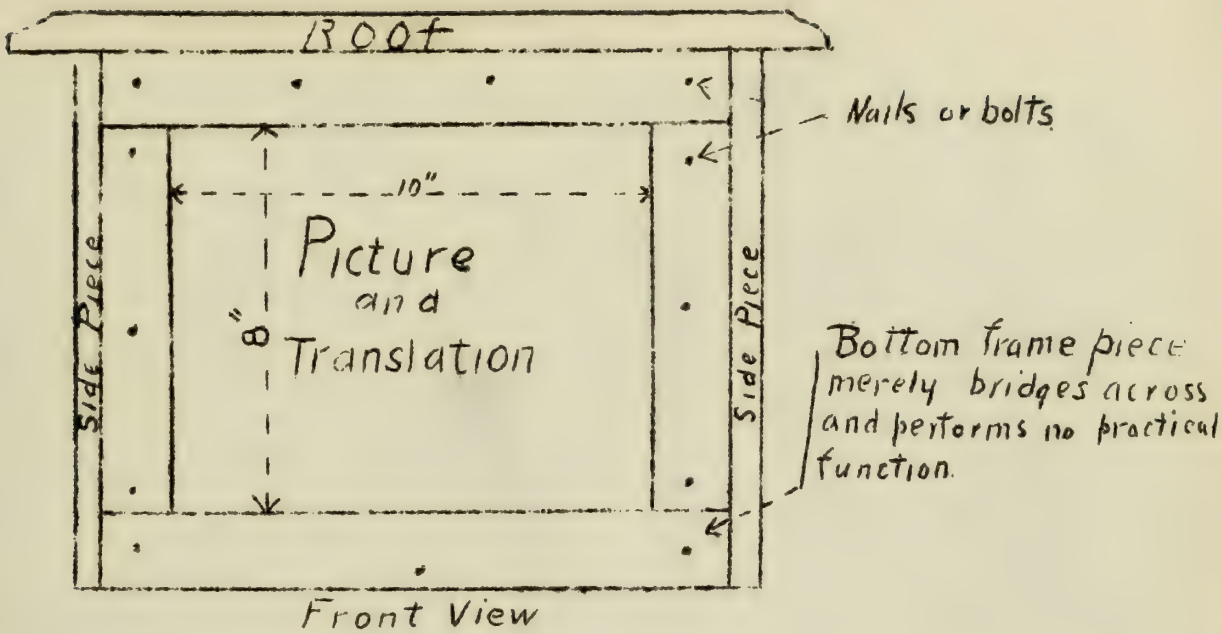
"On the oft threatened subject of boards for the housing of the translation signs, I doubt if there is anything of importance to be said as these will probably all be replaced when that appropriation for the protection of inscriptions is put to use. However, in the event that there may be an idea here worth preserving, and at the suggestion of Bob Rose, I am inclosing a rough sketch showing, or endeavoring to show, what these boards are like.

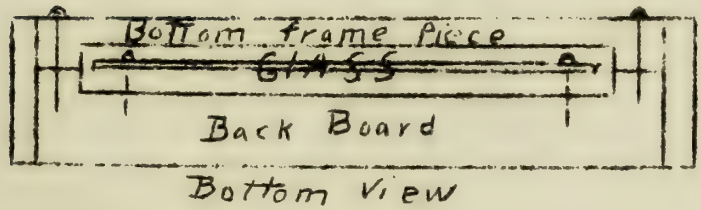
"The materials used are two by twelve inch planed planks and one by two inch planed boards. The planks form the back boards and the 1 x 2 stuff was made into frames and mounted on the planks in such a way that the only opening was at the bottom. The glass and translation card and enough paper padding to make a tight fit, are slid upward through this opening in grooves made in the frame pieces. The bottom frame piece is cut away to half the priginal thickness, except at the ends, and thus forms a bridge across the bottom but performs no practical function. The back board is also cut away a little at the bottom to help form this opening and to prevent any water running down the face of the glass from coming in contact with the wood and finding its way upward by capillary attraction. The glass rests on two nails or pegs driven into the back board and touches nothing else at the bottom thus allowing free egress for any rain water striking the face of the glass.

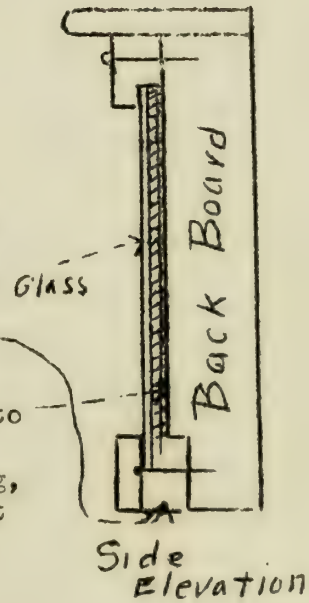
"The big trouble with the old boards was that the rain would pile up at the bottom of the frame and get behind the glass and then soak upward through the translation card.

"My boards had white lead put in the joints before being nailed together and were painted with several coats of linseed oil, but when a dry spell occurs they will warp and check somewhat. They would be better fastened together with bolts instead of nails, and be better made of metal than of wood. As you mentioned when we were discussing this in your office, this sort of thing should be constructed so that moisture cannot get in from rains and yet it must be ventilated so that air currents can pass upward through the boards to help keep them dry. I've noticed that the cards show some moisture even though the rain does not actually get into the housing. They soon dry out but this dampness may cause mold. I have been told that in Yellowstone they have a metal housing of this sort.

"I should mention that the glass extends well down below the translation card so that water running off the bottom of the glass has no chance of contacting and soaking the card."







Showing both back board and bottom frame piece cut away so that the glass, resting on two pegs or nails driven into back board is not in contact with any wood at bottom.

Translation card does not come down to bottom of glass but is held up in position by pressure of paper padding, which also holds glass firmly against frame pieces at top and sides preventing easy access of water.

A Satisfactory Card Mount

by Alfred Peterson of El Morro.

And, by the way, here is a letter which dropped in one morning during the month and as it gives an out-sider's viewpoint on Pete I think I will slip it in here. I can imagine him getting more and more embarrassed as he reads it for the first time. Here it is:

"I feel that my husband and I cannot leave New Mexico, and particularly El Morro, without writing to you to say first, that we have both been greatly disappointed that you did not come to the Rock so that we might have met you. Our stay has been rather more extended than that of most sight-seers. Second, we felt further that you would probably be interested in getting our point of view where Mr. Peterson is concerned.

"This season makes our third visit to this Monument. We have been to most of the southwestern parks and many of the Monuments, including the Chaco Canyon twice; Aztec twice; Rainbow Bridge; Petrified Forest, three times; Meteor Crater, Canyon de Chelly, etc., and while we have usually been favorably impressed with the men stationed at these places, we feel that Mr. Peterson ranks among the 'top-notchers' Of course I admit that we are prejudiced in his favor because we have gotten rather well acquainted with him, but nevertheless we have found him as highly satisfactory as a Ranger as he undoubtedly is where friendship is concerned.

"I'm quite sure his modesty will not permit him to tell you of the innumerable things he has done to make visitors comfortable or to add to their pleasure. For example, late in June we were camped at El Morro. One evening, about dusk, two girls stumbled in, tired, hungry and with practically no camping equipment in their car. They were school teachers from Chicago and were very eager to stop over for a day or two. From his own meager personal possessions, he lavishly supplied their needs, put up his tent, fed them, loaned blankets, etc. The girls had a glorious time, as we all did, and departed finally, with the greatest reluctance.

"Again, last week, Mr. and Mrs. Chuck Richey drove in under similar circumstances. It was too dark to see either the inscriptions, scenery, or the face of a friend, but we joined forces somewhat, and again Mr. Peterson rose to the occasion. The Richeys were delighted when they found it was possible to stay, and they had a thrilling night's rest in the little Wetherill Cave up the trail.

"We, personally, are under everlasting obligation to him. Monday we started to the Ice Cave to take some morning pictures. Six miles from the Rock a front wheel broke off, - our one and only serious accident. My husband walked back to El Morro, and Mr. Peterson took him to Gallup in time to get new parts, brought him back, labored like a Trojan, and at 2.00 a.m. we got back 'home.' I'm sure you would have laughed at the two men, wolfing beefsteak at 3.00 a.m. shivering, and pretending they were not all but dead. The next morning we slept late, but Mr. Peterson was up and on the job, ready for visitors at the usual hour. Nothing we could ever do would adequately express our appreciation for his good services.

"His courtesy, tact, and genuine frendliness are never failing. During the afternoon he was gone with my husband to Gallup, some vindictive tresspasser came in and killed poor Bosco, the Rattlesnake, a totally unwarranted misdeed. His regret was obvious, yet when a lady visitor the next day expressed a desire for the skin, he not only gave it to her, but helped her skin his dead pet!

"Personally, we are agreed that the Service is exceedingly fortunate in having Mr. Peterson in charge here at El Morro. The isolation alone is enough to annoy many men, to say nothing of the lack of accomodations, primitive living conditions, distance from supplies, etc. Yet he is happy and we have never heard a word of complaint from him about any physical conditions.

"I do hope you will overlook the length of this communication from a stranger, but we have heard of you so much, and so favorably, that I almost began it, 'Dear Boss.'

"Quite naturally, Mr. Peterson does not know I am writing you, but I think you should know how much we admire and like him."

Doesn't it make you feel good, Chief, to know that way out in the sticks on one of these lone man jobs, the standard brand of service is going over just the same? And mark you, this is just a temporary Ranger; he took the examination three or four years ago and came up near the head of the list, but we couldn't pick him off, and do you know why? Because he is an inch short! Visitors like him; he knows his stuff; he has the Park Service Spirit; but he is an inch short! Wouldn't the gods have laughed if a civil service rule had kept Bonaparte out of the army because he was an inch short? And now if we lift the rule, Pete couldn't take the new examination as Ranger Naturalist and thus become a Park Ranger, because he has no college graduation to his credit.

Incidentally, here is Pete's story of the visit of the Richeys and other things of interest:

"Mr. and Mrs. C. A. Richey arrived about dark the evening of the 10th, having been delayed by a flat tire. That flat tire and threats of more on his car, caused by picking up many pieces of lava which had been broken up and strewn on the Mesa Verde highway, rather surprised us. The tire and tube had about a dozen little cuts and were ruined, and Chuck was afraid to look at his other tires. When Dr. Winton, who is head of the geological department of the Texas Christian University, heard about the lava, he was dumbfounded and said: 'They might better have put broken-up beer bottles on the road, because they are not as hard as lava and would wear into rounded fragments sooner."

"Anyhow, it was late and Chuck was all for looking at inscriptions by flashlight and going on - probably because they had not had supper and also, like many paople who haven't the least idea of the interest to be found at El Morro, because he thought fifteen minutes would suffice to look the place over. We could not stand for a Landscape man getting away so quickly, and the Wintons were instrumental in talking the Richeys into staying over night, even giving supper to our late guests.

"And now we have an official guest room at El Morro, - Little Clam Shell Cave, located in the sandstone about four feet above the talus slope on the trail up to the Ruins, is just about large enough for two or three people to bed down on the clean, sandy floor, and the name indicates the form of the roof of the cave. That is where Chuck and Ruth slept that n night, their own bedding augmented by loans of blankets by the Wintons and offer of more by the Ranger. They both claimed to have slept soundly and

long, but Ruth told in the morning that Chuck nearly fell out of the cave in his sleep and she had to wake up and drag him back in; one arm and shoulder were over the edge, and he appeared to be ready to dive out on his ear.

"The name of A. Wetherill, under date of 1898, is carved in the wall of that cave; and that is a well known name in Mesa Verde and the Southwestern Monuments. .

"The next morning the Ranger and the Wintons conducted the Richeys over the more important features of El Morro, and Mr. Richey evidently came to the conclusion that future development would make this one of the outstanding monuments of the Southwest. Instead of a few minutes by the light of the stars and a flashlight, nearly half a day was spent going over the Monument, but that was not sufficient to cover thoroughly all the features.

"I told Chuck about the gate post proposition and he said he wanted to see the one we put up before they stopped us. He got away without a personally conducted visit to the spot, but he drove right past it on his way out and undoubtedly had a good look at it.

"Regarding signs, we did not accomplish much. Mr. Richey said if we would figure out what we needed for the time being, he would make a stencil for use in painting signs to save a lot of trouble. I pointed out that would probably mean making up a board sign and stenciling on it, and they do not last, - too handy for use as kindling by sheep-herders, etc. However, while the old signs are not a credit to the Monument, they are readable and have served to the present and may continue to do so until the new fence, etc., with appropriate signs can be erected.

"He saw our stone steps along the north face of the Rock under the inscriptions and did not seem to have his artistic temperment outraged. Also he expressed his approval of my idea about having the main road keep out of the Monument grounds and having a loop road for legitimate visitors to approach El Morro. He seemed in favor of future buildings being put on the north side of the Rock, but I endeavored to point out that the north side was like the north pole during winter and the consumption of fuel by permanent residents would, I believe, be twice as much as on the south side, to say nothing of the discomfort they would suffer. Also, that the south side is never uncomfortably hot even during the summer. That is according to my idea and experience and this is my third summer at this station."

And, since we have devoted so much space to Ranger Peterson and El Morro, we might as well finish off with the following post script which he stuck on one of his letters last month. Here it is:

"Just had some visitors in a Courier Car who had been at Chaco and were sold the idea by Hurst Julian that the grazing of sheep was the cause of forming deserts and that they should be run out of the country. Hurst must have been waxing eloquent on the subject, because they were enthusiastic about the idea, but surely Hurst knows that there are a number of other factors contributing to desert formation in addition to the one of overgrazing - especially of sheep.

"For instance: If my memory serves me rightly, any area having below fifteen inches of rainfall is officially classified as desert, and any change in meterological conditions reducing the rainfall several inches a year would probably produce a desert.

"If between ten and fifteen inches of rain fell during half or three quarters of a year and was evenly spread over those months, a very satisfactory pastoral region might result, - if not over grazed.

"If this same amount of rain fell in heavy showers about two months of the year, deep gullies, arroyos, washes, etc., might result in areas denuded of floral growth and a lower water table - a condition similar to that brought about by over grazing by sheep which allows a rapid run-off. And if both these conditions came together, the result would more certainly be a desert.

"There is also the character of the soil and the floral growth to consider.

"The great drouth, beginning in the latter part of the 13th century and extending into the early 14th century according to the tree ring chronology, may have started deserts in the Southwest that have never regained their pristine beauty. This is interestingly associated with the abandonment of many prehistoric pueblos about that time.

"This is just talk when I should be doing something else. If I am wrong, please put me right."

There is a lot in what Pete says, but there is something to be said on the other side too and I am leaving it for Hurst to say for himself next month. Personally. I know of several spots in our Southwestern district which can be pointed out as tending to prove both of the boys are right. We would welcome any other opinions or evidences from the rest of the force; our united knowledge of this country ought to enable us to put out some ideas worth considering.

ABOUT TUNNELS.

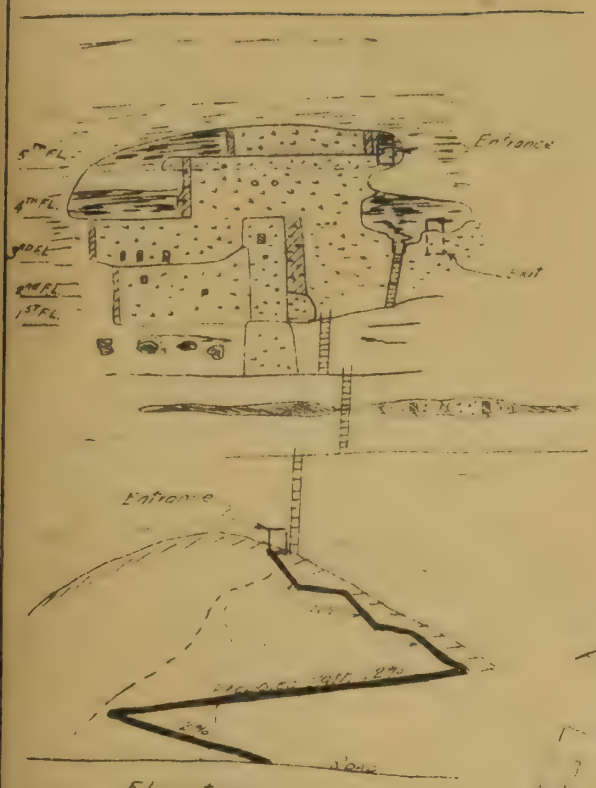
For the last couple of years we have been milling an idea around in our head as to how to handle the situation at the Montezuma Castle when it comes to showing the Castle to visitors and yet keeping it for posterity. Of course we might throw in with the fellow who wanted to know what posterity had ever done for him that he should have to look out for it; as a matter of fact I think we too often forget that a very large part of our job is preserving our prehistoric ruins from the present visitor and for the future one.

To anyone who doesn't know it, we are free to confess that the Montezuma Castle stands right up near the head of the class when it comes to picking the finest cliff dwellings in the United States; if you don't believe us, ask Mr. Jackson, who is in charge of it.

In the first place it is a real cliff dwelling as differentiated from a talus dwelling; that is, you don't simply climb up a sloping talus and enter it, but you climb up a sloping talus and then climb about fifty feet of ladders up the face of the cliff before you enter the dwelling.

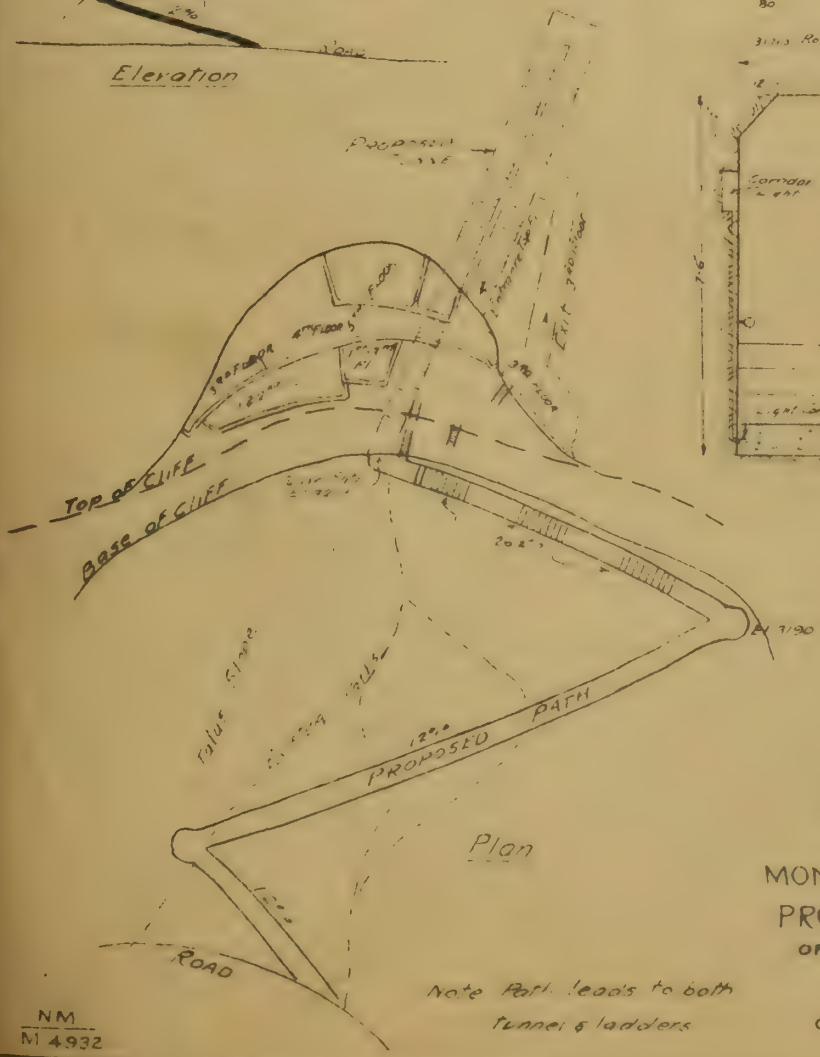
When you get up there you find a 21 room house tucked away in a large cave, with most of its floors intact and a general air of the ancient people having moved out about last week.

What worries us is how we are going to show it to people and yet keep them out of it, for if you will imagine an army of a million men camped on Beaver Creek at the foot of the ladders and begin passing them up and through the Castle four abreast until the whole army has gone through you will have some idea of the traffic we will have to let through there in the next hun-

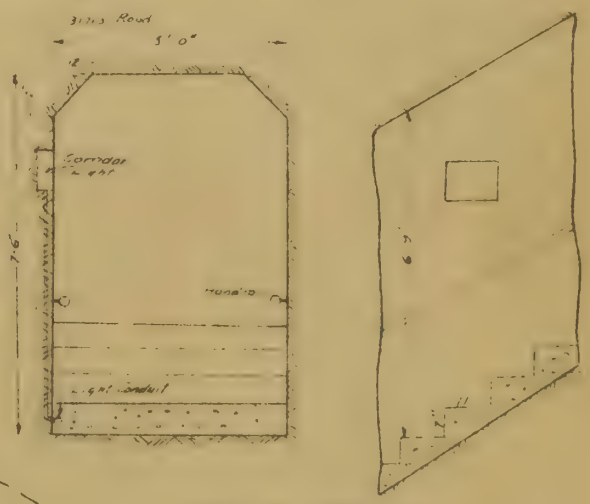


Elevation

Section on ℄ of Tunnel



Plan



Tunnel Sections
1" = 4' 0"

Note Path leads to both tunnel & ladders

DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
MONTEZUMA CASTLE NAT'L MON
PROPOSED PATH AND TUNNEL
OFFICE OF THE CHIEF ENGINEER
SAN FRANCISCO, CALIF
JAN 1932
GENERAL SCALE 1" = 40'-0"

NM
M 4932

dred years if we handle the situation as we are now doing.

Somebody some time ago talked about a tunnel and the idea grew on me and I began talking of it myself. I am willing to admit that it doesn't sound like much of an idea just to plunk it out in the middle of the conversation and say; "Let's build a tunnel up to the Castle and take visitors up through it." The average man you try it on says he doesn't like it and Tom Vint and some of the other Branch of Plans and Designs men say they would n't like it even if it was good.

Nevertheless, there is a reason behind it, and the more you turn the thing over in your mind the more it will appeal to you. The idea is not to let the visitor directly into the Castle at the top of the tunnel, but to cut observation openings into the various rooms, so he can look in from the tunnel but not be able to enter. Something of this kind is done in the east, at Mount Vernon for instance, where one is allowed to look into the restored rooms of the Washington home but is not allowed to go in and touch anything.

The Engineering Division has covered the situation with a sketch plan and elevations which they have kindly reproduced for use in this copy of the monthly report, and we wish, if you are at all interested, that you would look it over pretty well and let us have your reaction on it.

Announcement.

Mr. and Mrs. Lucian L. Constant announce the marriage of their daughter, Inja to Mr. Leon Hugh McSparron, on Tuesday, August 22, 1933. At home at Thunderbird Ranch, Chin Lee, Arizona.

The Mr. Leon Hugh McSparron, mentioned above, is our old friend, 'Cozy' McSparron who numbers his friends by the thousand and who has helped us so much at Canyon de Chelly National Monument.

We know the many members of the Park Service who know him will join us in wishing the newly wedded pair a long life and every happiness.

OFFICIAL DEFINITIONS.

The following is copied from the National Parks Bulletin of August, 1933.

"National Parks are scenic areas of original condition as nearly as possible unmodified by man, of national importance as distinguished from local significance, and of supreme quality of beauty, held unimpaired in permanent Federal ownership for the education and inspiration of the people, and for types of recreation consistent therewith.

"Classification of areas under National Parks:

Developed Areas are spaces modified by roads and buildings used to care for the transportation and housing of the public, and the activities of the National Park Service.

Sacred Areas, are spaces set apart to safeguard unique features of national parks, no buildings or roads being permitted.

Research Reserves are areas within national parks or monuments unmodified in character and administratively isolated from entrance (except in emergency or by special permit), and left undisturbed by man made development. Their purpose is to preserve permanently representative geologic phenomena

and biotic communities in as nearly as possibl unmodified condition and free from external influence, that their characteristic forms shall continue to be available for purposes of scientific investigation and education.

NATIONAL MONUMENTS are areas created by Presidential proclamation to preserve historic landmarks, historic and prehistoric structures, and other objects of historic and scientific interest, the limits of which shall be confined to the smallest area compatible with proper care and management of the objects to be protected.

NATIONAL HISTORIC PARKS are areas set apart to preserve historic sites.

OFFICIAL OBJECTIVES.

1. 'To conserve the scenery and the natural and historic objects and the wild life - - and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations' in all areas committed to its jurisdiction. Protection involves the retaining of carefully selected areas in an unmodified primitive condition as far as possible, complete protection for all forms of life, and avoidance of industrial and commercial use of natural resources. Use involves helping the visitor to secure the maximum of understanding and appreciation of the major features.

Within the superlative areas comprising national parks and national monuments, opportunity is afforded to meet the realities of natural achievements and study the inexorable laws underlying them; and in the national historical parks one may study human achievement in many of its most important and stirring aspects, thus stimulating the highest mental concepts and patriotic emotions and contributing to the enrichment of human lives.

2. To secure for the various systems (National Parks, National Monuments and National Historical Parks), only those areas which conform to the highest ideal of their respective standards.

3. In all the areas to develop the highest type of service to the public.

Horace M. Albright, Director."

I have embedded the above matter in this report so that it may become a part of our records and I want everybody connected with the Southwestern Monuments to study it thoroughly because it will be referred to again and again in the coming years as the official Park Service pronouncement of its end and aims.

Here is a letter from the mail the other morning:

"Dear Mr. Pinkley,

I understand youre superintendent of the national monuments in the southwestern part of the United States. If so, I think that you can give me some information and illustrations of the monuments that you look after.

"As I may see them in the near future I would like to know something about the things I would see if I travelled in that part of the country. I would appreciate it very much if you would gather a little information for me. You dont have to send me very much. Just a little material would give me an idea of the country. I wouldn't want to see something dull and uninteresting. I would like to get my money's worth if I took this trip. Of course I would like to have a list of the hotels or lodges in the vicinity of the monuments and their rates. Also the information of the most interesting places to see in that part of the country."

All of which is a fairly large order but the gentleman will get his information and we will hot tell him about the dull and uninteresting parks and monuments.

SOME CHANGES.

Edgar Rogers has been transferred from Park Ranger, Tumacacori National Monument to Custodian, Bandelier National Monument.

Martin Evenstad has been transferred from Chief Clerk with headquarters at Casa Grande, to Park Ranger, Tumacacori National Monument.

Hugh Miller has been transferred from Chief Clerk, Wind Cave National Park, South Dakota, to Chief Clerk, Southwestern Monuments, with headquarters at Casa Grande National Monument.

Ed was already on his new job, this being his second summer in Bandelier and about all this means to him is that we will move his household gods up to him and he and Gay will have another place to move from when we need a pinch hitter someplace else in the Southwest. Gay was down the week this report went to press and packed things up and moved. Here's hoping nothing slipped when the household stuff was going down that thousand feet of tramway into the Canyon. It's a great life at Bandelier, Chief; when you go to town you climb up about as high as the Empire State Building to get to your car and all the time you are congratulating yourself that when you come home you will be coming down the trail and it will be easy. Then when you do come home you have about fifty pounds of junk you purchased which you have to carry down the trail and a half mile up the Canyon to the house. This is one reason Ed. is so lean and lanky.

Martin took his annual leave and went up to the Snake Dance and visited some of the monuments up that way as will be seen in the other section of this report. After checking up over the month end with Hugh on the books, he will report to Mr. Boundey for duty at Tumacacori. He took the transfer to get out into the open a little more and get more exercise. Mrs. Evenstad and the baby are still in North Dakota and will probably remain there until the heat of the summer is over.

Hugh Miller just came in and hung up his hat and went to work without any fuss and feathers and he has the whole book-keeping system eating out of his hand right now. He hasn't been made Disbursing Clerk yet but that is in the process of being done and then when we get him made a Notary Public he will have had his third degree. He struck us in some pretty hot weather which might have been a good thing, because as we gradually cool off into the fall he will be gradually annealed which, I believe is a toughening process making him less liable to break.

He submits the following

"HOWDY" LETTER FROM THE CHIEF CLERK.

"I have heard a great deal about the spirit and friendliness of the folks in the Southwestern Monuments, and in saying 'Howdy' with ink until I can make it personal, I want to say, too, that I am mighty proud to think I'm going to have a chance to play on your great team.

"There is a common feeling that Chief Clerks are emissaries of the devil and that their whole business on earth is to weave dark designs of red tape to plague the lives of honest men. It really isn't so and I'll do my best to prove it.

"We may have to ask for a little patience in the matter of payments until the Treasury Department transfers Martin Evensted's disbursing balances to me. This matter ought to be cleared up during the month of September. In the meantime we will have to take important payments down to Martin at Tumacacori."

While it isn't a change exactly, this is the proper place to tell you that we have another new member in the family. Meet Tom Charles of Alamogordo, New Mexico, Custodian of the White Sands National Monument. He is now the head of the biggest gyp outfit in the United States; if you don't believe it, ask Tom. He has the livest up-and-comming Chamber of Commerce in New Mexico behind him and, together, they expect to go places and do things with that new Monument. We have Mr. Charles' first report this month. It is a good one and we will expect many more like it, what with the heavy salary he is drawing and all.

Ed Rogers comes in with his usual good cover this month. It is an enlargement from a picture I took in July of a small portion of the Be-ta-ta-kin Ruin in the Navajo National Monument. Ed was afraid he couldn't do justice to Miss Story, of the Washington Office, who was standing on the roof in the fore-ground, so he left her out. John Wetherill is left out too but not for the same reason; Ed was probably tired and wanted to quit so he just let the post sticking up out of the hatchway represent John. It is about the same height and width, but it lacks that twinkle in the eye which is so characteristic of Hosteen John. By the same token, there was a third figure in the foreground just starting down the hatchway but Ed just waited a minute and let him go on down out of sight so he wouldn't have to draw him.

This Be-ta-ta-kin Ruin is a knock-out. You have to ride seven miles up from Marsh Pass to get to it and you come up a side Canyon of the Segi the last two or three miles through some mighty fine scenery; then you get down and unsaddle the mule and eat about as much lunch as three men ought to eat and then climb up to the cave and there you are! Those of you who have visited Cliff Palace will understand I mean cave when I tell you the cave at Be-ta-ta-kin has about four times the cubic capacity of the cave at Cliff Palace. Marsh Finnan figured this out himself, so you know it isn't exaggerated in our favor at least. To those of you who have not, through the kindness of the gods, see Cliff Palace and so cannot catch the comparison I might say the Be-ta-ta-kin Cave is about six hundred feet across the face of the arch, about five hundred feet high and about two hundred feet deep.

Those are just so many words and don't mean much, but you can take it from me, it is a whale of a cave and the ruin is an A grade ruin and there is a beautiful view out into the canyon which at that point is filled with bushes and trees. John Wetherill has opened up the old spring used by the ancient people and a clear, cold, refreshing drink is now available for the fat lady from New York who will wear loud checked knickers and wonder why these poor benighted Indians built way out here so far from the railroad.

Thanks, Ed, for the cover; it's another good job well done.

Look what the mail brought in!

"I feel all broken up and down hearted this month. Have not yet received the Southwestern Monuments monthly report for July. Would hate to miss an issue of such an interesting serial, so thought I would write and learn if there was hope of receiving a copy.

"Am almost willing to bet that I will have to blame it all on Bob Rose. With new family duties to attend to its only natural that old fogies like myself would be overlooked." That's from J.B. Herschler, and we are proud to think our monthly report can make the grade as pure reading matter for J.B. doesn't have to read them as do you folks in the Washington Office.

And, speaking of Walt Attwell. He tried to put a fast one over on us and nearly succeeded. The Denver Post tips us off that he wrote in there for the twenty hardest words in the English language and, after they dug them up for him, Walt used the worst of them on us in that epistle last month.

Hereafter anyone springing words of more than six syllables must file a certificate of original research showing that he discovered them for himself in Mr. Webster's little book.

And Jackson isn't fooling us either. That report of his is written on a different machine and another color ribbon from that old Oliver bean thresher he generally writes on. We suspect he has put the monthly report for the Castle off on younger shoulders this month. As long as the quality holds up, we should worry.

The next three or four pages go to the Educational Division. Bob Rose has something interesting to say on handling youngsters on guided trips through the wonders of our National Monuments and is offering the results of some of his own experiments for the benefit of others and for general comment from the men of our district. After all the most important job in the Service is held by the man who deals with the public. I once heard a Director tell a Superintendent that Superintendents weren't so very hard to get nor were they so very important; a good chief clerk was much harder to find and his mistakes were much more serious than those a Superintendent made. Whenever I get puffed up over my job, I can get back to normal by recalling that remark. But after all the Chief Clerk can only get you in bad with the General Accounting Office; the man who deals with the public can ruin the reputation of the whole Service unless he knows his stuff.

SOME PROBLEMS ON GUIDED TRIPS

(R. H. ROSE)

Enthusiasm:

Sometime ago an inquiry was made as to the meaning of "enthusiasm" which I listed in the July Supplement as one of the qualities that must be reflected by the successful guide. It seemed to me that about the best definition offered was given by The Boss when he stated that "the best salesman is the fellow who is convinced that the thing he sells is the best of its kind on the market and he reflects this feeling in explaining his product to you."

The national monuments are for the most part the "best things of their kind" and the guide that feels this enthusiasm as he gives his lecture or progresses with his field trip has gone a long way toward achieving success.

It might be well to list in outline form some of the points which were brought out in the July Supplement(We were considering the characteristics of good guides and successfully guided trips):

A. The guide must possess
   1. Enthusiasm, tact and loyalty
   2. Ability to express himself clearly
   3. Thorough knowledge of the subject
   4. A feeling of satisfaction in being able to be of genuine service to others.

B. Some points to observe in trips and lectures are
   a. The facts of fundamental importance should be stressed in every trip and lecture.
   b. We should strive to give a brand of service that pleases.
   c. We should not underestimate the intelligence and overestimate the knowledge possessed by our visitors.
   d. If given facts are emphasized several times, the greater the variation in vording and method of driving these facts home the better. In a university Chemistry Class for example, the student gets the same facts (1) through his own study of the text-book; (2) through the lecture of the professor to the class; (3) performing an experiment in the laboratory to illustrate certain facts; (4) by studying and taking certain quizzes and examinations several times during the course; and (5) by preparing for final examinations. Thus, many of the important facts are brought to the student's mind five times before he has completed the course.
   e. Don't feel you are compelled to standardize the length of your trip. However, the most successful trips seem

to be those that are long enough to allow presentation of the story such that no essential information is omitted. The actual length of time to get a certain amount of information across depends a great deal upon the guide's particular method of presentation and speaking style.

f. Analyze your tours. Perhaps you can break a 15-20 minute stop(where visitors are required to stand) into two or three shorter stops. People won't get nearly as tired.

g. Do less telling people on the outside of the ruin or village site about "what they're going to see" and leave those things that can be 'discovered' to be brought up during the course of the tour. I'll try to illustrate this point later as it applies to conducting parties of children.

h. Reading and re-reading the basic references cannot be overemphasized as a remedy for staleness. Suppose you give three scheduled lectures daily. You'd think you'd never need to review the subject material; yet just try about five or ten minutes before every lecture or trip looking over a prepared outline of what you should touch upon during the lecture or the tour. You'll be surprised how much more 'snap' your trip or talk will have.

i. Review the history of the National Park Service. Get something of the background of the Antiquities Act of Congress; these are some things that are always coming up in the course of a guided trip and make fine material.

j. Don't forget the value of building up the proper perspective. Remember the greater insight obtained by studying the World War, for example, as the culmination of certain rivalries, fears, former wars and territorial divisions, etc,, as compared with considering merely the immediate outcome of a series of battles. Illustrating by example taking the Casa Grande. To (a) explain that the Big House was a watchtower; (b) its walls are about 4 feet thick at the base and outside ones are battered inward to about 18 inches; (c) ground floor rooms were filled presumably to strengthen walls of inner section because they wanted additional story for height; etc---to explain these points and to neglect to (1) explain that the irrigation system was extensive quite early in the occupation of the valley; (2) Compared with pottery of other sections at the same time, the Red-on-buff was of fine quality; (3) the peoples for many centuries practiced cremation burial; (4) the ~~equivalent of~~ kiva isn't found down here; (5) ancestors of American Indians probably came via Bering Straits, etc.--would not place the Casa Grande peoples in their proper relation to the whole subject of Southwestern Archeology. Rangers and

others doing guide work in Southwestern Monuments generally draw these comparisons and give these broader facts. Still, building up the proper perspective by telling just how the archeology of your monument compares or contrasts with that of other sections of the Southwest, is of very great importance, and cannot be given too much study.

FIELD TRIPS AS TOURS OF "DISCOVERY AND EXPLORATION"

Most all of us have seen guides who were quite successful with a field party or audience of adults but who seemed to "sink in their boots" at the thought of conducting a party made up of children of grade school age. We've seen guides who could hold the interest of children where others seemed not to be able to do so. What is the secret of the successful guide with children ? Granting that the personalities of the two guides are equally adaptable to guide work, the difference in success of one and the failure of the other lies in the Methods employed. I've tried to find the good points of the successful guide with children. Perhaps I can illustrate by supposing again that we are taking a trip thru the Casa Grande and Compound A:

Instead of beginning the usual way by saying "On nearly 500 acres of the Monument are many prehistoric village sites, some of which go back some 2000 years while others such as this one before you was constructed around 800 years ago-----etc.", suppose we proceed with an introduction telling how all of these wall-enclosed villages were abandoned when the white man first came through in 1540; tell of Padre Kino's visit and what he say and what he learned from Pimas then in this region. After giving this introduction in more elementary form for children that for adults, we begin to vary our method on other things:

After explaining that the village was enclosed by a wall, the remainder of the tour can take on a sort of question-and-answer form. We'll begin by supposing we've gotten as far as the wall.

Guide: "It's certainly strange to find a wall-enclosed village site out here in the middle of the desert. How high do you suppose this wall was ?"

Child: "High enough to keep the enemies out" (Various ideas will be given from which the guide leads the group to a proper understanding of the right answer, or accepted theory).

Guide: "Yes, the wall had to be at least eleven feet high and that's exactly what was found several years ago when an old section of the wall on the south side of the village was uncovered and measured"

Guide: "Look to the north. In those mountains probably lived the enemies of these peaceful village people". How do you suppose the enemies made their living"

Child: (Probably various suggestions will be given and out of them all, will come ideas that these enemies were probably hunters, stole the stores of grain of the village folk; were nomadic; could have been the Apaches, etc.)

Guide: "Does that help us to see why these villagers put no doors, gateways or windows in their outside walls"?

Child: (Children will be anxious to explain fear of enemies gaining entrance at vulnerable points in the wall explains why no openings were made. The guide can also lead the group to realize there were no wheeled vehicles, no draft animals, no machinery of metal, etc. and that doorways and gateways were less needed than in Middle Ages in Europe where wheeled vehicles and animals had to be brought inside during attack of the village or castle.

Guide: "How could we have gained entry to this village had we come 600 years ago and not today "?

Child: (Children will delight in telling of entry by ladders, etc., and the guide can go on to describe briefly how ladders were made)

Guide: "Let's just turn the calenders back 550 years and see this village not in ruins as it is today, but alive with activity. Indians are sitting in their doorways; ladders lead to the roofs where we see Indians weaving cloth, backets, etc. while others are coming and going thru hatchways in the roofs into rooms with no outside doors. On this particular day the village seems deserted. Most of the able-bodied inhabitants went to the fields early and won't return until almost dark. How are they able to raise crops in a desert like this ?"

Child: (Children will suggest irrigation whereupon the guide tells the approximate extent of the system)

Guide: "We've been here probably an hour and while the Indians have come and gone about, it seems the man on top the high building has never been out of sight. He seems intent upon seeing into the distance as though that were quite important."....

Child: "He's probably the village watchman" (Whereupon the guide can develop the watch tower theory of the building from nature of

the surrounding country.)

ide: (The guide might go on saying "A smoke signal seems to be rising from the top of the tower.....etc. and describe a scene of workers from field rusing in and describe how the villagers get bows and arrows, spears, stone axes, etc and take positions behind tops of parapet wall which is part of defensive wall which rises higher than roofs of one-story houses build inward from it, This is a very good trick if the attention seems extra good up to this point)

We might continue the imaginary visit in the present tense for arly all the remaining part of the trip. To 'turn the trick' of changing nses is something requiring careful handling, and once the party of ildren and the guide catch the enthusiasm of the scheme, it is a werful method of getting information across to children in a way they'll nember a long time.

Notice the (1) way the guide words his questions, and (2) the swers children usually give. You'll see that the children were led discover that :

The wall was defensive ("high enough to keep enemies out")
The enemies were fierce nomads.
No doorways were made. Vulnerable points in wall not desired.
Entry to the village was gained by using ladders.
Irrigation was secret of agricultural life
Tallest building(Casa Grande) was watchtower.

Once tense has been shifted to present, the skillful guide can ep it . Regardless of that point, however, children can be led to .scover' the wall is built in courses; (2) the ground floor is 'illed; (3) the two holes in lime were probably for calendar use; they had to go great distances for timbers; (4) small doors 'e designed probably for defensive purpose, and other facts and ories.

By this method of 'discovery' you get exactly the same inform- on across but in doing it you challange the child's mind with stions frequently and keep it occupied with active present tense scription. Children get restless and their minds wander because 're not appealing directly to them in the ordinary discourse hod of guiding trips.

Trips afield and in museums in parks and monuments should be far erior to information of the same sort given in the class room. This because of the rare opportunity to 'discover' facts and theories

st hand offered in the field whereas classroom material is usually rned second-hand. Classroom instruction is given under the al academic methods of lectures, note-taking, quizzes, final minations, and etc. whereas in the national parks and monuments have a splendid opportunity to teach some of these same classroom ts by avoiding the undesirable features of class room instruction. seems that the most effective method educationally in conducting ld trips is that method which permits the greatest amount of scovering for themselves! on the part of visitors.

I have emphasized the fact that the 'discovery' method is ecially good for groups of children. We shouldn't stop with that. it on your average parties of adults from time to time. Just ause some of our guides are 'good' guides certainly doesn't preclude possibility of being still better regardless of past experience. a nature hike suppose you've come to a pine tree and you want to the idea across that it is a Yellow Pine and another tree a little ther on is a sugar pine. You could come to one tree and stand ore it and merely say "This is a Yellow Pine for if 'we were to mine the bundles of foliage we would find three needles to the dle'. Then the guide in like manner could do the next tree with its e needles to the bundle the same way.

A guide who would miss the rare opportunity here for allowing itors to 'discover' should, to use a common expression, "be hung". much better it would be for him to pick up foliage and have the itors do the same and 'discover' three needles on practically all bundles then allow them to come to the next tree and find it has five ll its bundles. Then allow visitors to 'discover' how the differs in color and texture, etc. Thus they discover the difference een Yellow Pine and the White Pine for themselves. Cones, foliage, , general contour of the trees are points visitors can make discoveries hemselves.

Nature trips offer finest opportunities for employing the 'discovery' hod. Trips through ruins are quite adapted to the method especly since in delving into the story of ruins we are dealing with achievements of human beings who were like us and not plants and mals.

Again I should say that if we could all get together in a meeting h a formal chairman, we would talk over just those things discussed ve. Lacking in such meetings the above points are discussed as r as possible with the hope that for some of those doing guide there may be found something that will help in the ution of problems. If these discussions prove to some ng more than the fact that guiding parties is something more n merely "leading people around and 'telling' them all about it", t they have justified the trouble taken in writing them up.

1931)

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

STATUS OF PERSONNEL

Southwestern National Monuments ~~National Park~~ for the Month of August, 1933

	This Month		This Month Last Year	
	Appointed	Non-Appointed	Appointed	Non-Appointed
of employees beginning of month	28	1	30	3
of additions	1	17	1	16
l	29	18	31	19
of separations	0	14	1	18
of employees close of month	29	4	30	1
of promotions during month	0	0	0	0
te amount of annual leave taken	10	0	0	0
te amount of sick leave taken	0	0	0	0
te amount of leave without pay	15	0	50	0

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

STATUS OF PERSONNEL

Administration: National Monuments
NATIONAL-MONUMENTS for the Month of January, 1937

	This Month		This Month Last Year	
	Appointed	Non-Appointed	Appointed	Non-Appointed
r of employees beginning of month	[illegible]	1	24	2
r additions	1	19	1	18
al	24	14	22	18
r separations	4	14	1	18
r of employees close of month	20	4	20	2
r separations during month	13	0	0	0
ate amount of annual leave taken	18	0	0	4
ate amount of sick leave taken	0	0	0	0
ate amount of leave without pay	16	0	20	4

IN CLOSING

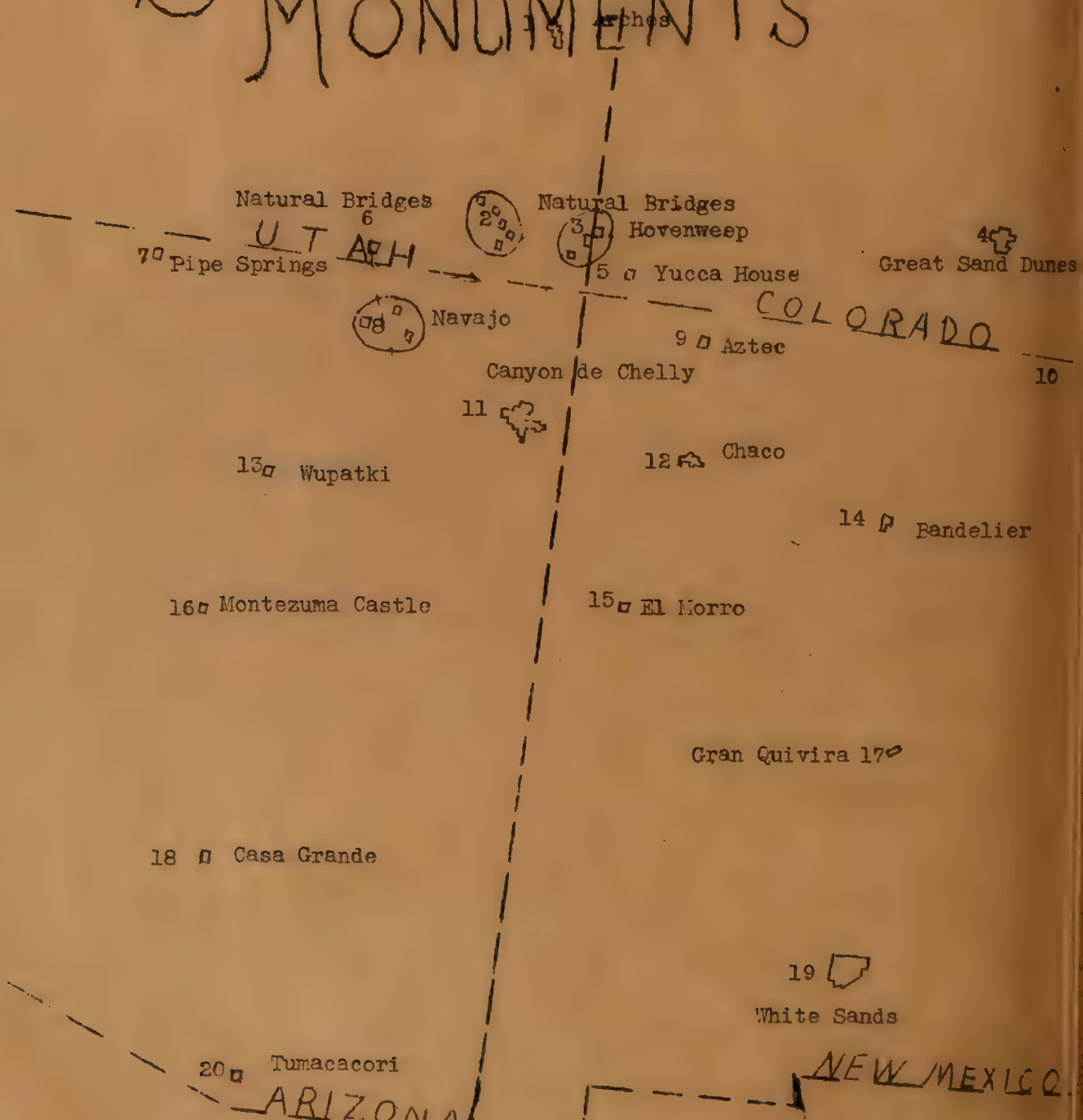
We get a lot of fun out of these monthly reports, Chief, whether you do or not, and I hope you can sort of get a birds' eye view of the district in its general aspects from them. If you think of anything special that you want to know about the southwest from month to month, I wish you would let us know and we will try to keep you posted. As you probably know, we are using this report for several purposes; mainly as a report to you so you may keep in touch with our work from month to month, but it also serves as a house-organ to keep our men in touch with each other, a clip-sheet for the use of the press in this district, a news sheet keeping museums and field workers up to the minute on discoveries made from month to month on our monuments, and, lastly, as pure reading matter of interest to certain persons who ask us to mail them a copy. This last is a most surprising use for a Government report. We have not time men nor money to get out separate material for these several uses; we know this report is not specialized along these different lines, but it serves the purpose; or at least nobody has yet asked to be taken off the mailing list. Papers are welcome to clip or re-write anything they can use and we had rather not have it credited to us; we like publicity for the Service but the less lime-light we get for ourselves, the better.

Cordially,

Frank Pinkley.

Superintendent.

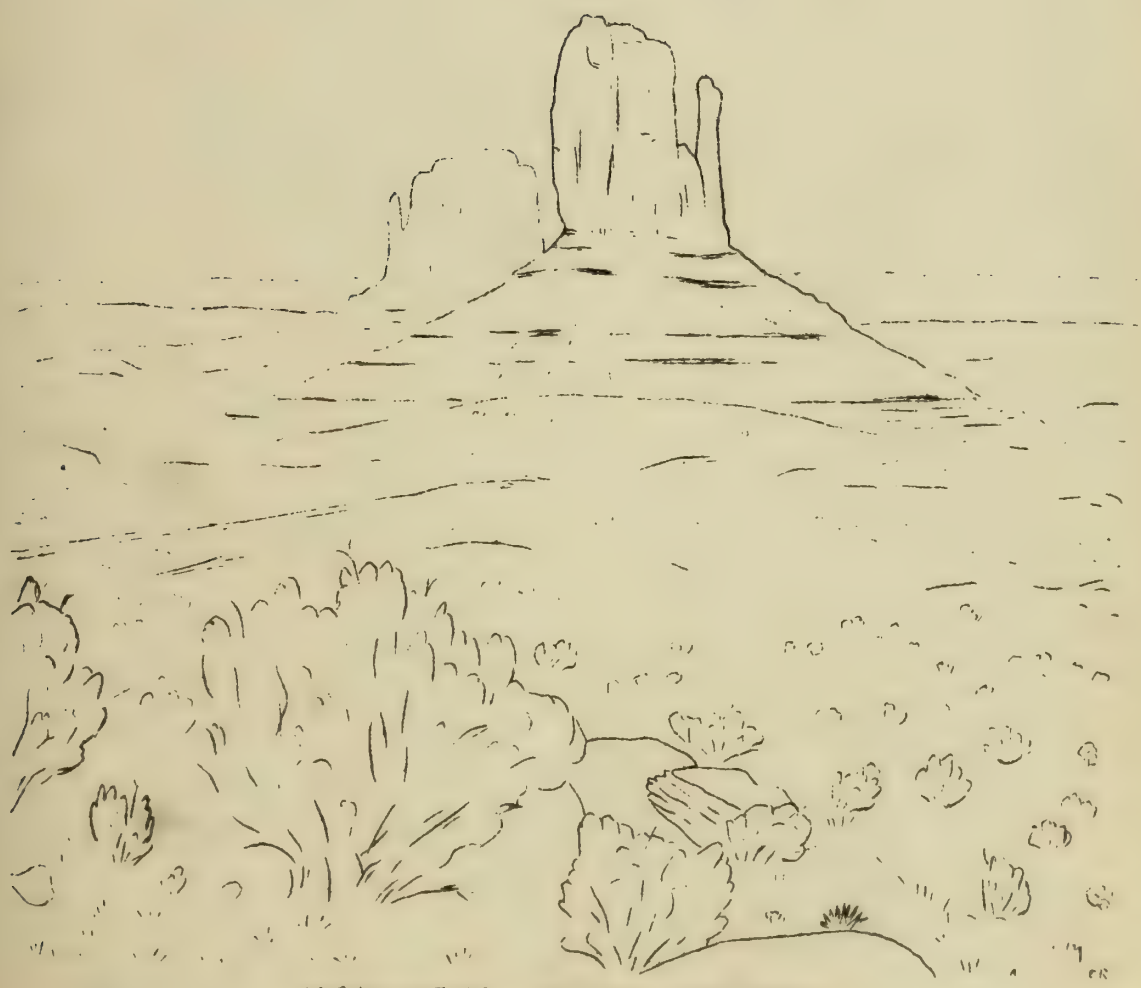
SOUTHWESTERN MONUMENTS



SOUTHWESTERN MONUMENTS

MONTHLY REPORT

SEPTEMBER 1933



MONUMENT VALLEY ARIZONA

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THE SUPPLEMENT.

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UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF NATIONAL PARKS
BUILDINGS AND RESERVATIONS
SOUTHWESTERN MONUMENTS

Coolidge, Arizona, October 1, '33.

The Director,
Office of National Parks,
Buildings, and Reservations,
Washington, D. C.

Dear Mr. Director:

September has passed and, while the thermometer at our headquarters is still playing around a hundred, there is a fall feeling in the air and in the course of another two or three weeks we will be able to wear a coat to work.

Weather for the month over this district as a whole has been good and the roads have remained in good shape for travel.

In the northern part of the district visitors will decrease and where we have men in charge of monuments they will begin to lay out the winter work and prepare to do those things which were left undone in the rush of the summer visitors. In the southern part we will begin to key up and get ready for the busy season of the year.

Over the district as a whole we could handle more visitors than we are getting but if they don't come to us we have enough other work to keep us busy.

REPORT OF ASST. SUPT. ROSE.

"Early in the month we were able to comply with the request of Dr. Chas. B. Lipman, Dean of the Graduate Division, University of California, for a sample of earthen wall from a prehistoric ruin. Accompanied by Benny Lee, laborer from time to time at Casa Grande National Monument, I drove to a place between Casa Grande and Florence known as Adamsville. Here were standing walls of the type that met Dr. Lipman's requirements. We were glad that we were able to carry out this request and yet not damage our ruin walls on the Monument in any way.

"Dr. Lipman, plant physiologist, has found colonies of living bacteria in old adobe bricks taken from the walls of the California Missions. He was anxious to obtain samples of prehistoric ruins walls for the purpose of applying his studies to more ancient materials.

"Considerable time was spent in organizing some notes on Petrified Forest for the resources edition of the Arizona Republic.

"This month's report carries an historical sketch of the Pipe Spring National Monument written by Leonard Heaton, Acting Custodian. Leaving headquarters on September 11, Mrs. Rose and I visited Pipe Spring and spent four days there. Measurements of the rates of flow of all sizeable springs on the Monument were made.

"While there I met Harry Langley, of the Branch of Plans and Designs.

we went into problems of future development and maintenance of that Monument.

"Pipe Spring is our only Monument to early pioneers in the Southwest System."

BANDELIER NATIONAL MONUMENT. EDGAR ROGERS, CUSTODIAN.

"Dear Boss:

"September shows 634 visitors, an increase of 16% over the same period as last year. The weather has been favorable to travel, although showers have been frequent. Frost has not yet occurred but cool nights and falling leaves show that fall is near.

"The roof of the quarters was re-covered during the month and it is to be hoped that the leaks are stopped for a while. The old roofing paper was quite rotten; cracks occurred faster than they could be patched.

"Mr. and Mrs. Johnwill Faris, and Mr. and Mrs. Charles Amsden were among the visitors this month. "

At the end of the month word comes to us that we will have a winter camp of the E.C.W. at Bandelier. Thus Ed will go from one busy season into another. Sixty or eighty miles of trails to be rebuilt and a general clean-up of the dead and down stuff on the floor of Frijoles Canyon ought to keep a 200 man camp fairly busy during the winter season. We also hope that this camp will mean the release of some of our Public Works money which had been set up for trails on the floor of Frijoles Canyon and down the Rio Grande so we can use it in some much needed construction and thus advance our six year program at Bandelier materially.

CASA GRANDE NATIONAL MONUMENT. HILDING F. PALMER, CUSTODIAN.

"Dear Mr. Pinkley:

"Once again the time has arrived for reporting the activities of the Casa Grande National Monument.

"The most important thing of course is our visitors record and once again we have to report a decrease from the preceding year. In September, 1932, there were 1,286 visitors and in September, 1933, only 1070, a decrease of 216 or about 17%. Our visitors record for the coming year will more truly reflect actual travel conditions, for this year we changed the method and only counted those who were actually conducted through the ruins or museum. Always before, everyone entering the Monument had been counted. During the coming year we will keep a separate record of those who drive in but do not visit the ruins under a guide.

"The 1070 visiting the Monument this month came in 317 cars, an average of between three and four persons to the car. 703, or 65%, were from Arizona and the remaining 35% from 37 other states and Washington D.C. as well as four foreign countries. The whole 1070 were personally contacted on 198 trips through the ruins of Compound A and 182 museum tours. October should see a decided increase in visitors as we go into cooler weather.

"Our yearly travel record shows some interesting statistics: We reported 21,771 visitors for the year, a decrease of only 124 over the preceding year. Had we used the same method of counting as last year we would have shown a decided increase. These 21,771 visitors represented every

State in the Union, the District of Columbia, Alaska, Hawaii, and 22 foreign countries. Arizona, of course, furnished the most with a record of 13,663 or 63% of the total. California was second with 3,114, or 14 %; Texas was third with 607; Illinois fourth with 432; and New York fifth with 370.

"During the year 2,777 trips were conducted through the ruins, an average of over 7½ trips every day of the year. 2,504 lectures were delivered in the museum, or an average of seven lectures per day.

"A table showing the geographical distribution of visitors at Casa Grande for the travel year is attached.

"The month has been unseasonably hot. Mean Maximum was 101.8; mean minimum was 67.2; the mean temperature was 84.5. The maximum temperature for the month was 112 on the 5th; the minimum was 54 on the 25th and again on the 27th. The total precipitation was .74 inch. There were 24 clear, four part cloudy and two cloudy days.

"Three projects under the Public Works program were started during the month. $900 had been allotted for camp ground development. 210 feet of new ramadas in accordance with the plans of the Branch of Plans and Designs were erected and twenty new picnic tables were constructed. This work has been completed and during the coming month the new and old tables will be painted and five fire places will be constructed. A crew of four men were given a total of 19 six hour days of labor each and two men and a team of mules were employed for seven six hour days.

"$900 had been allotted for water extensions and a crew of two men have been changing all 3/4 inch water lines to 1½ inch and installing new utility faucets so that it will be possible to water all shrubbery with a maximum of 50 feet of hose. These two men have worked ten six hour days.

"The third project is the repair of two quarters; quarters 3, now occupied by Robt. H. Rose, Asst. Supt., is being given a coat of stucco on the outside to prevent weathering of the adobe walls. Quarters 2, occupied by Ranger Frank Fish, is being remodelled throughout and is also receiving a coat of stucco on the outside to prevent weathering of the adobes. A completely new built up roof is being built on Quarters 2; new floors will replace the worn cement floors; hardwall plaster on the inside will replace the sand plaster, and new built in kitchen conveniences will add to the pleasure of the occupants. Ten men have been used on this project~~s~~ for a total of 53½ ~~hours~~ six ~~day~~ hour days.

"Labor on all these projects is being obtained , according to the President's instructions, through the National Re-employment Service and it has been found to be a mighty satisfactory method of handling employment. All men furnished thus far have been excellent workmen. Common labor is being paid 50¢ per hour, Senior Laborers, 65¢ per hour, skilled labor helpers 85¢ per hour and skilled labor $1.00 per hour. We work six hours per day and five days per week.

"All projects are going along satisfactorily. Two projects remain to be started yet; a new residence and walls around the administration building.

"Ranger Fish is occupying the old Superintendent's quarters during the remodeling of Quarters 2. Assistant Superintendent, Rose, moved into his permanent quarters during the month. This is Quarters 3 which had been used by Mr. Evenstad. After Mr. Evenstad moved down to Tumacacori and before Mr. Rose moved in, the quarters were given a complete overhauling and were repainted and redecorated.

"Much good to the community has resulted from the labor employed on and the supplies and materials purchased for these projects. So far, these are the only projects under way under the Public Works Program in Southern Arizona.

"Last month I reported the construction and installation of a new water cooler for visitors use together with a few remarks about Landscapers. Under date of September 21st, I received the following from Assistant Architect, Harry Langley: 'Copies of monthly and yearly reports of Southwestern Monuments received, read and enjoyed with special attention given to the write-up on the water cooler. I feel quite gratified that I am almost as famous as Herb Kreinkamp with his out-swinging door.' 'Yesterday I received the photograph of the revised installation and, judging from the tilt of the camera, there must have been something stronger than ice water in the cooler; possibly some form of christening liquid.' In that last paragraph Harry must be waxing facetious: I am sure he knows everyone at Casa Grande is a teetotaler.

"Anyway, the new cooler is a dandy and we admit that its location is much better according to Harry's idea than according to ours.

"And last, but not least, stray cats are <u>not</u> as safe at Casa Grande since the arrival of the new Chief Clerk.

H.F.Palmer, Custodian."

DISTRIBUTION OF CASA GRANDE VISITORS.

Ala.	2 cars	15 visitors.
Ariz.	3852	13663 "
Ark.	6	44
Calif.	1156	3114
Colo.	87	265
Conn.	7	26
Del.	2	5
Florida	5	21
Geordia	5	17
Ida.	8	45
Ill.	100	432
Ind.	30	156
Iowa	27	120
Kas.	37	117
Ky.	6	40
Lousiana	2	18
Me.	4	17
Maryland	5	26
Mass.	18	107
Mich.	62	219
Minn.	25	96
Miss.	1	16
Mo.	54	242
Mont.	7	32
Neb.	29	104
Nev.	10	35
N.H.	1	5
N.J.	16	57
New Mex.	69	180
New York	76	370
North Car.	5	13
N.D.	2	9
Ohio	67	279
Okla.	52	225
Ore.	21	77
Penna.	31	169
R.I.	8	24
S.C.	1	6
S.D.	4	21
Tenn.	6	45
Tex.	170	607
Utah	23	98
Vermont	0	2
Va.	3	25
Wash.	52	170
W. Va.	4	24
Wisc.	26	127
Wyo.	12	42
D. C. Columbia	13	60
Alaska	0	9
Hawaii	0	4
P.R.	0	3

Argentina, 3; Australia, 1; Chile, 3; China, 2 Canada, 52; England, 3; France, 4; French Indo China, 1; Germany, 7; Guatemala, 1; Hayti, 1; Ireland, 3; Italy, 1; Japan, 4; Luxemburg, 1; Mexico, 7, 31; Norway, 2; Panama, 2; Porto Rico, 1; Scotland, 1; Siam, 1.

Total; 7,226 cars, 21,771 persons.

"My dear Mr. Pinkley:

"I am sorry to report that just a little over fourteen thousand visitors have called upon the Capulin Mountain National Monument during the past twelve months. This is a considerable decrease from the total of the previous year, but I might add that I was unable to control the depression, which I believe was partly the cause of the drop and another large factor was the fact that the latter part of this summer the road up the mountain has been in pretty bad condition. We have not had a cent this summer to repair the road and this gave the traveling public a very bad impression. Of course news like this spreads rapidly to others who will not then drive up over the bad road.

"Here's hoping that we can still find a few dimes to repair the road this fall."

And, speaking of poems; here is a poem on Capulin by Elizabeth H. Emerson which ought to be preserved, so we will just file it here in the monthly report:

Oh! Capulin!
You stand majestic on the plains;
Silent and cold and proudly calm,
Your sides grass-grown and wound about
By circling paths whereby men scale your height
And look below to checkerboards of green.
Upon your rim one gazes into space,
Far over meadows to mountains clad with snow,
Or turning, walks within your hollow heart
And treads on the cinders last to glow and die.

Oh, Capulin!
In those years long since gone,
What secret passion burned within your breast?
Did some wild rage of hatred smoulder there,
the fruit of envy, jealousy or strife,
Until, one day, you could no longer chain
Its mighty forces, and in one upward heave
Cast forth the evil thing, leaving when done,
Only a hollow where had stood a graceful peak?

Or may it be that deep within your heart
There glowed some nobler, warmer fire,
An unrequited love which burned by night and day--
Became a pain you could no longer hide?
Perhaps you could not longer hold your head
Proudly above your neighbor sister peaks,
And with one sudden spasm of despair
Your sorrow burst from its green-clad cage
And your great heart broke,
Casting its remnants far and near upon the plain.

"Dear Boss:

"The 662 Chaco visitors for this month came from 19 states, Italy, Germany, England, and Washington D. C.

"The activities of the month have been concerned with catching up on many little things that I did not have time to do during the rush of summer. As you remember, the water ran through the museum in torrents on the occasion of your last visit. It seems to me that we must have carried tons of earth up to the roof to repair it and to prevent the occurrance again. The office roof and the roof of the tool shed have also had a recovering of earth.

"There are several other places that need attention too. These, we hope, will be attended to this month.

"I do not think that I have reported the completion of a small ramada at the back door of the residence. This is for shade for the water barrel. The sun shining on the drinking water made it a little too hot for drinking.

"The report on the matter of the cliff cavity excavation has been completed. A copy is inclosed for your use, and copies have been sent to the various scientific institutions requesting them.

"A group of very interesting visitors came to the Chaco this month, perhaps I should add, as usual. Among them were the following persons:

"General Wood and the staff of National Guard Officers.

"Mr. and Mrs. Clifford Wight. Mr. Wight is a prominent English Sculptor.

"Charles Collier, Assistant Indian Commissioner, came with his staff of builders, to get ideas and plans for construction on the Indian Reservations, so the ancient Chaco architects have at last been recognized.

"Dr. and Mrs. Alexander Goetz, of Germany and Pasadena, spent several days with us. Dr. Goetz has been working at Cal-Tech with Millikan and Einstein.

"Dr. and Mrs. Lee E. Deets, of the Department of Sociology of the University of South Dakota stayed several days. Dr. Deets will return next summer in order that he may complete a sociological study of the Chacoquenos for publication.

"Mr. and Mrs. Hemen were also visitors. Mr. Hemen is here on the matter of conservation with the Interior Department.

"Dr. and Mrs. Seltzer, on research work for the National Research Council paid us a visit. Dr. Seltzer will publish his studies on Physical Anthropology as quickly as he has had the opportunity to get back to the National Museum and complete his studies on the skeletons which were taken from Bonito by the National Geographic Society Expedition.

"I was asked to attend a conference at Santa Fe which was to arrange the details of the construction on the road to Chaco. The Highway Commission met with the various Superintendents of Indian Reservations, Governor Seligman and interested parties. They came after me and I joined the procession. The sum of the deliberations were about as follows:

"The State is to start immediately on the road from Thoreau to Crownpoint. This road is to be oiled. The Indian Service will have, by the time you receive this, started a gravelled highway from Crownpoint to Chaco."

Hurst.

If this road goes through as it is planned, Chief, we are going to be badly undermanned at the Chaco by the latter part of the summer next year. Visitors will flock in there as soon as they are assured of a good road.

EL MORRO NATIONAL MONUMENT. E.Z.VOGT, CUSTODIAN.

Mr. Vogt writes, under date of September 22, as follows:

"Dear Pink:

"A heavy lift on a pump weighing several hundred pounds proved too much for me. I loaded the pump onto a truck but crippled my torso for a few days. I managed to drive home forty miles by myself but ever since arriving I have been in bed. It's a great rest for I am getting time to read, write and enjoy the luxury of having my good wife wait on me and serve me with good meals in which she joins me by my bedside. Such rest and treatment will relieve me in three days more, so it's hardly worth while even to make a claim on my life insurance policy.

"I think the most notable news of the month is covered in the inclosed clipping from the Albuquerque Journal in which you will read of the final approval of the Grants-El Morro-Atarque road project. In addition to what I send from the press, I have a letter from Mr. Glen O. Macy, State Highway Engineer, in which he tells me the survey will start at once.

"The short ten mile link from the El Morro and Department of Commerce Air Port to Ramah, is, we understand, to be approved a little later.

"This will be the final outcome of a fifteen years effort to get El Morro on a road which will bring us many visitors as well as provide an outlet to the railway both to Gallup and Grants for a rich region of agriculture and stock interests. The cooperation of the people in signing petitions and writing letters to Governors and Highway Commissions over so many years is highly appreciated.

"On the eighth I met Mr. Glenn O. Macy, State Highway Engineer, at Grants by appointment and brought him over the new road which the Forest Service and the CCC boys have completed for 30 miles from Grants, leaving but 20 miles to build to Ramah. Mr. Macy and I met Ranger Peterson at El Morro and had a short visit there before making the balance of the 200 mile trip I guided him over that day.

"A strong demand for the protection of the perpetual ice Cave and other ice caves further in the lava beds led Mr. Macy to wire me to meet engineer of the Park Service, Col. Elwood and engineer Geo. Bawl of the State Engineer's force at the ice cave for a reconnaissance of the region. Unfortunately my isolation at our sheep ranch resulted in my not receiving the wire in time to meet them, though I hurriedly threw together an outfit of surveying instruments, field glasses, gun, bed and chuck and drove from our home ranch to the rendevous - the Ice Cave, only to learn the party had been there and gone back to Santa Fe. However sorry I am not to have met them, I feel that they have started a fresh movement for the protection of that interesting area either by Federal or State means.

"Mr. Peterson is greatly missed at the Monument. I had a final conference with him the day he pulled out to re-enter the University of Arizona and was able to thus take over the responsibilities of caring for El Morro with a good understanding of the latest status of all things out there.

"The Monument has been visited recently by numerous members of the National Guard on strike duty at Gallup.

"Col. Staples, of Coolidge, New Mexico, had a party of Vermont friends out recently.

"We regretted not to be able to entertain Mrs. Ickes, wife of the Secretary of the Interior, as we had planned to do, but she left this country

shortly after the Inter Tribal Ceremonial and went to her home in Chicago and Washington.

"Frost still holds off and grass and flowers look fine both in wild and cultivated areas. Wild ducks are arriving at our lakes. Several bears have raided Indian corn fields not far off. Deer are increasing.

Evon Z. Vogt."

From Mr. Alfred Peterson, Temporary Ranger at El Morro, who went off duty the middle of September, we have the following report which is the last one from him this season.

"Dear Boss:

"I expect to be ready to leave for Tucson tomorrow, therefore this is my final report for the season. As anticipated, visitors have not been numerous since schools opened, but there have been about 120 at El Morro for the first half of September despite the fact that we have had several days of rain.

"The rains, incidentally, have filled the reservoir in the water cove to the point of overflowing without quite doing that.

"The inscriptions have been gone over with an application of DRIWALL to preserve them against weathering. The housings for translation cards are in a rather incomplete stage as the 'roofs' of wood have not been added. We should have seasoned and planed 1 by 4 stuff for this job; however I tried doing it myself with rough lumber which we had at hand. I found the lumber almost water-logged from rain. It was out of the question to use in this condition, and I doubt if it is yet dried sufficiently to do the work. This is one job I shall do the first thing next season,- if and when I come to this station. The housings, however, are adequately protected with heavy roofing paper as a temporary arrangement. Nearly all the translation cards show water stain, due to having been wet before being adequately protected, and I do not have new ones to replace them. All cards are readable, however. A weak spot in the housings is the joint between the side pieces of the frame and the top piece -- just a little crack about two inches long which was tight at first but opened up due to weathering and lets water in from driving rains. I have plugged up the cracks.

"I too had an invitation to attend the Inter Tribal Ceremony, sent me by the Association, but I thought it was more than a polite reminder not to miss the show. After reading the monthly report and learning of Hurst's three-day sojourn in Gallup at the expense of the Association, I see what a ¢ chance I missed. But I doubt if I would have spent more than one day anyhow, because El Morro has some of its best visitors during the Ceremonial and they are entitled to some service.

"Say, Boss, Frank Fish and Hurst Julian are not the only ones that can find potatoes under wild or questionable conditions. A badger has been doing some excavating in a corner of the large ruin on top of the mesa and dug out some pieces of charcoal. Having taken Dr. Douglass' course in tree ring interpretation, and having been requested by him to do some work of this nature, I was immediately pawing around the opening of the badger's hole, with the result that I have a large number of small pieces of charcoal some of which may be workable, and - two little potatoes which were growing at the mouth of the hole on top of the ruin. Also there are some eight or ten charred small corn cobs, an Ollivella shell, some bones and a tooth, probably of some animal.

"I certainly was flabbergasted to see the reprint of the letter written to you by one of my campers, but it makes a fellow feel good all over to have such fine people express such flattering opinions of him. Those particular campers, as you no doubt know, have done a lot to make this my most satisfactory summer on this job.

"Regarding the write-up of my remarks about deserts, this was a little more than I expected but it is all right with me. Just recently I had a local man tell me that sheep had run over and grazed a field until it absolutely had no more grass on it than a cement floor, to use his own simile. Then he took the sheep off for three months, rain came, and that field now has the best grass he knows of. This incident illustrates several things, (1) what happens when a field is over-grazed, (2) what happens when over-grazing is stopped, which supports Hurst's contention; but if there had not been sufficient rainfall the grass would not have come back, and (3) that this particular field was level, whereas ground on a slope would very likely have been cut by gullies with the first heavy rain, and, after all, it would appear that a great deal depends on the nature of the rainfall.

Alfred Petersen."

Under the heading: "Some Chiseling Gets U. S. Okeh", we picked the following story regarding El Morro out of the press reports this month.

El Morro, N,M,, Sept 21.-- Chiseling, both plain and fancy, was given the hearty approval of the U. S. Government here today.

"And the chiseling was done by 38 members of the Civilian Conservation Corps. "

"Returning several days ago from a brief visit to Zuni, the El Morro National Monument Custodian found that in his absence the forestry workers had covered a large area of the famed inscription rock - bearing carved messages dating back to 1609 -- with their initials.

"A report to their commanding officers brought the corps members back to the famed rock in double quick time.

"They spent a day chiseling more earnestly than this section of New Mexico had believed it could be done, until there wasn't a sign of an extraneous initial on the gleaming sandstone surfaces.

"The army sergeant whose initials led all the rest lost his rank."

GRAN QUIVIRA NATIONAL MONUMENT. MR. W. H. SMITH, CUSTODIAN,

Mr. Smith says, under date of September 22 that he has had 395 visitors enter the monument during the month past, and that they came in 96 cars.

"This shows a decrease in travel as against the same month last year and also as against the previous month this year. Some of this loss can be laid to the fact that our local people are very busy with the bean harvest and cannot spare time to visit.

"Weather conditions were favorable for travel the greater part of the month with but very little rain and comparatively cool, clear days.

"With the rainy season nearing a close we expect to spend the few dollars we have left in repairing the approach road. I hardly think there will be any more heavy rains that would be likely to do any damage

"Late last Sunday afternoon a nice new shiny coupe rushed up to the mission with two occupants; an elderly lady and gentleman. I walked up to open the museum and show them around but they declined my invitation saying

they were in a rush as they drove 140 miles to visit the ruins not knowing the roads were so bad and now they had no time left to look at the ruins that afternoon as they must go back home to get their parrot in out of the cold. They promised to come back some day soon and spend the day.

W. H. Smith.

MONTEZUMA CASTLE NATIONAL MONUMENT, MARTIN L, JACKSON, CUSTODIAN.

Mr. Jackson reports as follows:

"For the month of September Montezuma Castle had a total attendance of 1,735, with 718 registrants in the building, making the second largest month for attendance this year. Weather conditions up to the last week have been unsettled with two or three very heavy rains in the Valley. Roads have been rough for two or three days at a stretch, but the road workers are keeping them as a whole in better condition than usual. The Government road signs have proven to be a considerable help in guiding visitors.

"I have just learned that two of the Federal Aid projects at the Castle have been approved, so it looks like some more of the Walter Attwell days may come again soon. We will be glad to see him again if he comes.

"The C. C. C. camps have paid us several visits this month, and seem to be a pretty well-behaved and interested bunch of boys. One group of 129 came in one party, and while they were present Ranger Curry lectured to 173 people at one time.

"Zeke Johnson, Custodian of the Natural Bridges National Monument, paid us a visit and we enjoyed his stay. Among other interested visitors was Dr. H. P. Poston, grandson of the first southwestern Indian Commissioner of that name, and who made the old Mexican village of Tubac a town. Dr. E.W.Aitken, of Enid, Oklahoma, who camped with us for three weeks last year, and is greatly interested in our parks and monuments, came again this month from Enid to camp here for a week. Said he just couldn't forget the Castle.

"Mrs, Curry has been visiting friends for the past three weeks in Los Angeles, and has just returned on a single drive trip from the coast,. The Mrs. and myself were unable to make our proposed Castle publicity trip from here to Phoenix by boat on account of storms and floods, but intend to do it later.

Martin L. Jackson."

NATURAL BRIDGES NATIONAL MONUMENT, ZEKE JOHNSON, CUSTODIAN.

Zeke lost his notch stick or something last month. At any rate he didn't keep track of the days right and his report got in too late to put in our monthly report. He really did send one and here qre such parts of it as are not yet obsolete: "All is well with us out here. It seems that we are getting our share of tourists. There were 27 out this last week in one bunch from Florida. Three big cars went out today from California with 11 people. We about average one car per day and they all seem to enjoy their trip. The roads are in fair shape and the water at the Monument never was as good this time of the year, we have more than had our share of showers out there this year, and every flower in the Canyons has sure done its share to improve the looks of the country. I am sure happy when people come to see me and I try to do my best to make their trip a pleasant one.

On September 27th, Zeke writes as follows: "This has been a pretty slow month -- too much rain, and bad roads. However there have been 161 visitors register and I can count 46 that did not. Most of them were out early before I put the register out, and I am sure there will be at least 40 register before the roads close, making a total of 247.

"The roads are being repaired now and the weather is ideal, so I am sure a lot of people will be out yet.

"I have been doing some more repair work on my trails the last few days."

PIPE SPRING NATIONAL MONUMENT, LEONARD HELTON, ACTING CUSTODIAN.

"My report for the month of September is as follows: Our travel is only one less than last month, 284 for September and 285 for August.

"My travel by months for 1932 and 1933 is as follows:

	'32	'33			
October	140	750	May	120	145
November	107	165	June	175	145
December	50	180	July	375	329
January	15	45	Aug.	450	285
February	20	--	Sept	411	284
March	60	60			
April	117	160			
			Total	2,040	2,494

"I might say in reply to Tom Charles as to starting our report with the amount of travel, that you have to report travel to show that people are interested in your monument; if you didn't, you would find yourself without funds. Then too, it shows that you are busy, or partly so, depending on the amount of visitors. Also it is required that the total travel be sent in to the Washington Office September 30 of each year and a monthly record helps a lot in getting this number.

"I think we have had a wonderful season even though our winters have been so that cars and even horses could not travel through the latter part of January until the fore part of March. The high months of travel in both years are September and October because of the work on the Zion tunnel road at that time which threw traffic around this way.

"Our weather is still dry with the nights getting cooler as we near winter. Last Wednesday, September 20th, a good rain hit just north of us but it seems that out on our flats it just can't rain at all and the feed condition for live stock is going to be very bad here. Most of the cattle men are wanting to sell most all they have this fall if possible, for they figure there will be a great loss if there is any snow at all.

"I enjoyed the visit of Bob Rose and his wife very much. They got here September 12th just at dusk and stayed until the morning of the 17th. We also had Mr. Langley and Mr. Stevens of the Park Service and Mr. Ford of the Union Pacific System on the 15th. I feel that Mr. Rose and I went over the needs of this Monument pretty thoroughly, especially the water question as we measured it and checked it over several times. I know that what has been the common belief as to the water flow here at Pipe Springs has been too high. Actual measurement is about 41.7 while I had always thought it to be

about 75 gallons per minute.

"To have some one come in and suggest things that ought to be done and criticize my work and how I am doing things is like sending a battery over to town to have it charged, for I have found that I was getting stale on some things and now have more pep and a desire to do more in making the Monument attractive and desirable to see.

"We gave Mr. and Mrs. Rose a chicken supper at Moccasin on September 15th. Most of the people around Moccasin attended and we surely enjoyed the occasion. Tell Bob that several of the women have told me to ask him to come back and sing again as he has one of the best voices for singing out of doors that they have ever heard.

"Nine of our Indians have got work in one of the C. C. C. camps for the winter and a large per cent of our unemployed are in these camps; there are five of them within 150 miles from here. "

"Leonard Heaton."

TUMACACORI NATIONAL MONUMENT, GEORGE L. BOUNDEY, CUSTODIAN.

Mr. Boundey reports as follows: "Visitors for the month, 426. This has been the quietest month since I came to the Mission. Nogales, Sonora is doing away with much of the red tape necessary in entering Mexico and the Chamber of Commerce in Nogales is putting on an advertising campaign to bring tourists into Mexico by this route. I believe this will bring many visitors into this country during the winter season.

"Martin Evenstad joined our force here at the Mission the first of the month and we have been overhauling the pumping plant and lighting system and getting things in general fixed up for the winter season.

"Treasure hunters are very much in evidence at the present time. They spend quite a bit of money among the local people in the way of labor, guides, etc. If it wasn't for our police dog it would be necessary for us to look after the Mission and grounds during the night time as they are all anxious to do some digging on the monument.

"Superintendent Pinkley paid us a short visit and looked over the water problem with us. As always, we were very glad to see the Boss.

"The last heavy rains have raised the water levels in the wells and have done much for the cattle men in the way of feed.

"There are many places in this vicinity of interest to the students of Arizona history. I have heard many interesting tales of the country lying between Mt. Lemon, Oracle, and Winkleman. I spent a night and two days in that country and I believe there are a few portions of it as rich in historical and archaeological material."

"George Boundey."

WHITE SANDS NATIONAL MONUMENT, TOM CHARLES, CUSTODIAN.

Mr. Charles has another good report for this month and it is full of information for the use of our other men who can direct visitors down to Alamogordo if they know what they are talking about when they direct them.

"There is so much to report this month. Sunday, September 3rd, was full moon and over one hundred car loads of picnicers spent the evening at the sands. Eighteen car loads from the town of Tularosa cooked their

pers on the fireplaces furnished by the Alamogordo Chamber of Commerce. ee car loads came from some place in Oklahoma. The others came from El o., Las Cruces and Alamogordo. It was a lovely party and a perfect ning. The next evening 65 Rotarians and Rotary Anns ate their supper at sands. They gathered on the highest drift and waited for the moon to e up over the Sacramentos after which they listened to M. E. Opler of the versity of Pennsylvania discuss the habits of the Mescalero Apache Indians. r 125 visitors wer at the sands that night. The ideal weather has at-cted many to the sands for the evenings this month.

"This too, is the season when the lakes are red at the Great White ds. The Chamber of Commerce has attempted to discover the cause for se lakes and springs in the monument area changing to a crimson every fall. 'Nominal' Custodian volunteered the services of the automobile and a egation of the Chamber of Commerce joined in the search for the red lakes. found the phenomenon in a small salt spring just off the National Monument a. Unfortunately we were a few days late to catch the said red lakes in ir bloom, the main body of water was changing to a milky color, true to n, while around the edges of the pool the water was still red. A erful magnifying glass showed plenty of life in the water but no trace color in any of this life. At present we have a sample of the water at Chemical Laboratory at the State College hoping that Prof. Botkin give us some light on the question, 'Why are the red lakes red?'.

"It looked for a time this month like we would surely have a 200 man C. C. camp at the sands this winter. We may not get it, but we have rned something. We know that 'truck trails for administrative purposes' ugh hard surfaced and polished, are not 'roads.' Truck trails come er the Act, but roads, never! The Chamber of Commerce advises that ck trails are good enough; all they want is some way to get out to the lakes, the soda beds, to Miracle Point, where the 'Giant's Tracks' and Southwest's most renowned mirages occur, and to the Sands themselves. we do not get this C. C. C. camp we will always feel that it is because our st report went on page 13.

"By the way, we appreciate the publicity you gave us in stating t we are 'Head of the biggest Gyp outfit in the U.S.'. But why the itations? You cramp our style, Mr. Superintendent. Say the largest the World if you please!

"Did you notice that on our maps the little black line through the te Sands Monument indicates a secondary road? Well, the 'Nominal' todian objected. The New Mexico Highway Department, on their 1933 map, w this as a first class all weather highway. Eighteen miles at the Las ces end of it will be let for completion on October 3rd. We hope that miles at this end and past the Sands, will be called for completion on Oct. .

"We are unable to give you a count this month. The State Highway tial count shows 138 cars per day; The Las Cruces Chamber of Commerce tial count shows 180 cars per day, while our own partial count, for one only, shows 106 cars from seven a.m. to seven p.m. Probably 15,000 ple have passed through the Monument this month.

"We get lots of reports on wild life at the Sands. All the way from te mice and white lizards to white coyotes, but this week, for the first time 20 years, we had a report of a mountain lion there.

"One of the cowboys in that vicinity found the lion and shot at him, woun-
g him slightly. The man followed him for two or three miles into the
ds and when night drew near the man went home. Next morning investigators
nd that the lion had turned back when the man did and followed the man's
cks up to within a hundred yards from camp. Their foot prints showed
inly on the sand.

"There seems to be no occasion for weather report or road conditions.
Chamber of Commerce advertises 345 clear days per year and there is never
ay that cars are held up on the White Sands Road on account of weather
ditions. "

"Tom Charles"

Which is a good report and just to show Tom that it's all right I
ht point out that again he has made page 13 in the report and we will see
t comes of it.

And about those 'truck trails' Tom, I have heard of some pretty
ny truck trails being built in the Southwest, but I haven't heard of any
ng built by the Park Service, have you? I mean any of the kind you refer
My advice is; let us so live that when the Head Man's inspectors
e around, as they will sooner or later, and check up on any C.C.C. work,
can look them right square in the eye and tell them to go jump in the
e! Our Chief and the Head Man of our Department are both square shooters;
them a truck trail is a truck trail so far as I have observed.

After reading your ideas about a weather report, Tom, I am wondering
you don't explain the change of color in your lakes yourself. Seems to
it may be a fairly simple matter: when the alkali content gets too high
becomes dangerous to life, what more natural than that the lakes should
n red? Then when the alkali content is reduced to the safety point
y would of course turn green. You drop one of those Chamber of Commerce
ther reports in one of those lakes and see if the alkalie content doesn't
up and turn the lake red in 30 minutes.

EC RUINS NATIONAL MONUMENT, JOHNWILL FARIS, CUSTODIAN.

Mr. Faris also lost his notch stick and came mighty near not making
s month's report. A little more speed next month, Johnnie, if you want
into the A class where Aztec belongs.

"After all the start we had the fore part of the month, our visitors
al 1090 for September. This is a decided drop over last year. The
vy rains of the past two weeks may account for a partial drop.

"Ranger Thompson left me on the 24th. His services as usual were
ond all that is expected of a ranger and I feel very fortunate in having
h a man to help out here.

"I am getting in touch with Chuck Richey relative to our museum plans
icial notice has been received to proceed and as soon as I can get any
ormation, I will pass it on to you."

ENERAL, Chief, things have gone all right among the Southwestern Monuments
ing the month of September.

Cordially,

Frank Pinkley
Superintendent.

SUPPLEMENT TO THE
SEPTEMBER REPORT OF THE SOUTH*
WESTERN MONUMENTS
****

Dealing with people and things
of general interest.

We want to put into the record for future reference the following report from Custodian Hurst R. Julian, of the Chaco Canyon National Monument, on some work done at that Monument during the past summer. The report follows:

The cliff cavaties from which we have taken some rather remarkable artifacts of the ancient Chaco quenos were, like so many other things, discovered quite by accident.

The story involves several other considerations and studies. It started with a search for the probable origin of the fill or debris which covers so many of the ruins of the Chaco. Apparantly the several feet of material was washed in, or had been carried in by the winds to serve as a protecting mantle for the most remarkable ruins in the United States.

Some of the debris fell from the tops of the walls, possibly much of it was blown in by the winds, and perhaps some of it had been carried in by flood water. Speculating upon these possibilities, the first step in the ratiocination came during a rain storm.

The cliff walls of the Chaco present the appearance of a minature Yosemite after a hard rainfall. From every water course a stream is poured into the Chaco to fall from the top of the cliff. It was reasoned that possibly there had once been a talus slope at the base of this cliff which had caught the falling water and as a consequence, had been washed into the ruins below.

This thought was considered from every angle of approach. It was repeatedly turned over in the conscious as well as the sub-conscious mind. Verification was sought, or, what is perhaps as well, disproof of the hypothesis. I. the ramifying considerations it was realized that if there had been a talus slope of importance, there certainly must have been at least some talus slope houses or villages upon it.

The speculation turned to the postulated talus houses. It was noticed that there was evidence of there having been such dwellings. The cliff wall still bore testimony in the form of the holes which the talus dwellers had chipped into the face for the accomodation of the ends of the secondary roof beams of their houses. Indeed, Mr. J.B.Hamilton, an engineer of the Office of National Parks, Buildings, and Reservations, discovered what is perhaps the first house in the land to have had running water.

Beneath the horizontal row of roof beam sockets, at the base of the cliff near Chetro Ketl, was the lower end of a trough which had been carved in the face of the cliff in such a manner that it caught the rain water from the cliff and conveyed it to the house which once stood upon the talus slope which had partly washed away.

All these ruminations and as yet no thought of the cliff cavaties. That connection came during a session of contemplation in a room in Pueblo Bonito which has the not common feature of wall crypts suggesting the all

safe of the more modern residence.

What treasures had these once contained? Had they held priceless turquoise jewels, or had they been fashioned for nothing more spectacular than the deposition of ordinary food stuffs? But the possibility of cliff cavaties was suggested.

If some people went to the trouble to build depositaries in the walls of their houses, surely the talus dwellers would have availed themselves of the cysts which nature had provided for them in the wall of the house which was formed by the cliff. If such had been the case, possibly there just might be some little thing that the Chacoquenos had overlooked while preparing for the exodus, and there was a possibility that it might still be in the cliff depositaries.

A ladder was secured and placed beneath what appeared to have been a portion of a house. A cavity was found in the cliff wall, and in the cavity was a perfect specimen of a planting stick as perfectly preserved as though it had not lain in seclusion these many hundreds of years.

The success of the operation led to further investigation with the consequences that much of the material which is exhibited at the museum of the Chaco Canyon National Monument was recovered in this manner.,

CATALOGUE OF MATERIAL TAKEN FROM CLIFF CAVATIES
PRIOR TO JULY 6, 1933.

A-1-c. Specimen mount containing shelled corn, beans, bean pods, corn stalks, leaves of corn plant, squash seeds and rind, pijon nut shells, and misc seeds, including one that suggests an oat seed.

A-2-c. Restored pot containing corn cobs, three of which have sticks inserted in the ends.

A-3-c. Restored pot containing corn cobs, two of which have grains of corn on them.

A-4-c. Restored pot containing corn cobs.

A-5-c. Restored pot containing bits of squashes, rind and as yet unidentified stems.

B-1. Bottomless basket, 5¼ inches in diameter, approx. 3 inches in height.

B-2. Circlet of Yucca leaves, 2½ inches in diameter, outside measurement.

C-1-c. Specimen mount containing cords of various sizes, evidently made of Yucca fiber; yucca leaf thongs.

M-1-c. Cardboard box containing bits of corn cobs, stalks and leaves, bits of grasses, and what appears to be the rind of a cactus fruit, bit of feather quill which may have been carried into the crypt by rats or a bird; piece of what appears to be lignite, and several as yet unidentified odds and ends.

N-1-c. Cardboard box containing unidentified bones which seem to be of rodents, and possibly sheep; also a bit of horn unidentified. (This cavity had been occupied by some bird such as a hawk or owl.)

P-1-c. Cardboard box containing miscellaneous assortment of potsherds, plain, smooth, coiled (corrugated), and decorated.

R-1. Wood carvings which, when viewed from one position, represents a human head, including a painted face, head dress or hair, and neck. Measurements taken from top to bottom, approx. 5 inches; from front to back approx. $2\frac{1}{2}$ inches. When held with face upward, the figure suggest the head of a bird, or possibly a round bodied fish. The ear of the man forms the eye of the bird, the man's nose is a crest for the bird, and the neck of the man is split to represent the open mouth of the bird. The man's hair or head dress is a neck for the bird.

R-2. Wood carving similar to R-1.

W-1. Arrow Shaft without feathers or head, but having sinew bindings, one of which is stained green.

W-2. Arrow shaft with sinew bindings; with red band and a black band painted on shaft underneath the feathers, if the feathers were in place. Only the ends of the feathers remain under the bindings.

W-3. Arrow shaft with sinew bindings.

W-4. Ditto.

W-5. Ditto.

W-6. Ditto.

W-7. Hard wood planting stick, approx. $4\frac{1}{2}$ feet in length, shaped as a gigantic sword. Excellent speciman.

W-8. Bundle of weeds bound together with yucca leaf thongs, approx. 6 inches long and $1\frac{1}{2}$ inches in diameter. This suggests the handle of a whisk broom.

These materials were taken from holes which we have called P.S.-1, P.S.-2. and P.S.-3. These holes are in the cliff wall between Pueblo Bonito and Chetro Ketl. Evidence suggests that there will be several more depositaries in this wall between these two ruins.

LIST OF THE MATERIALS TAKEN FROM THE CAVITY U2.

This cavity is in the cliff wall above the Kin Klet So ruin. It is approximately $\frac{1}{2}$ mile down the canyon from Pueblo Bonito.

FOUND WEEK OF JULY 8 - 15, 1933.

1. 236 corn cobs of varying sizes and conformation. The larger ones are from six to seven inches in length. The seed rows vary from four to ten. One fragment has been charred.

2. Many fragments of corn stalks, leaves and corn cobs.

3. Three kernals of corn.

4. Unidentified fragments of bone.

5. One black and white potsherd.

6. One fragment of basketry, approx. 2 by $2\frac{1}{2}$ inches. Woven of more or less coarse material. Diagonal technique.

7. One fragment of basketry approx. three fourths inch square. Very much finer materials used in same weave.

8. Bits of woven fabric, apparently cotton, dyed red.

9. One beautiful though small fragment of double weave cloth.

10. Bits of blue and white twisted string.

11. Small wads of what appears to be cotton in the raw state. Also bits of material which might be cotton bolls.

12. Fragments of squash rind to the number of 29.

13. Fifteen square knots tied in stripped yucca leaf thongs.

14. One fragment of cordage with two overhand knots tied in it.

15. Seven pieces of small cords.

16. One fragment of twisted osier, $\frac{1}{2}$ inch long.

17. Two squash seeds.

18. Three Yucca seeds.

19. Several pinon nut shells.

20. Several of two kinds of unidentified seeds.

21. section of feather quill.

22. Two pieces of leather or one piece of leather and one piece of closely woven material.

23. One fragment of stick with two bowls burned in it. Evidently part of fire making aparatus.

24. Bits of mineral pigment. Yellow and pink in color.

D.

CONTINUED EXCAVATION OF CAVITY U-2

1. Agricultural Products and other plant materials.

Maize;

Cobs, 601.	
Cob fragments,	425.
Stalks;	16
Husks	8
Kernels;	3

Special note;

1 small cob with stick protruding from ~~end/of stalk~~. stalk end.
1 small double or split ear.
1 fragment, approx. 1 inch square, matted corn husks.

Squash or Gourd.

Stems	21.
Pieces of rind	81
Seeds	11.

Cotton.

1 cotton boll
Several bits of raw cotton.

Seeds:

Pinon shells, 16.
Several unidentified seeds of several species.

Woody plant material.

8 sections of reed (arrow reed) $2\frac{1}{2}$ to $6\frac{1}{2}$ inches long.
Many unidentified twigs, sticks and pieces of wood.
Many yucca leaves, usually stripped.
Some Juniper bark.

2. Evidences of fire.

2 charred pieces of corn cobs.
2 charred pieces of corn stalk.
Several bits of charred corn husk.
Several pieces of charcoal.
1 piece of burned bone.

3. Artifacts. (Materials showing manipulation by the hand of man).

Yucca leaves twisted and stripped as if used as thongs or in basketry,38.
A yucca leaf 5 inches long, 3/4 inch wide, containing resinous substance?
3 small pieces of yucca leaf with resin.

Knots. (square)

30 knots tied in stripped yucca leaf.
1 knot tied in Juniper bark.
1 knotted stick or twig
1 narrow strip of yucca leaf, approx. 16 inches, coiled, two knots.

Braid;

1 square knot tied in braided material.
1 3 strand braided stripped yucca leaf.
1 three strand braided rope, 3 inches long.

String;

Several fragments of white cotton string.

Rope and Cord;

1 square knot tied in cord, (yucca fiber).
2 pieces of cord khotted together.
1 piece of cord 16 inches long.
1 piece of cord 10 inches long.
1 piece cord 8 inches long.
5 shorter pieces of cord.
27 fragments of cord.
1 piece of rope 5 inches long.

Cord;

11 examples of cord with the midribs of feathers, as prepared in the feather cloth shroud. One piece seems to have fur binding in place of the usual feathers.

Fashioned wood;

1 small stick whittled or gnawed.
1 stick 4 inches long, ground to a point at one end.
1 section of arrow shaft 2½ inches long, showing string notch and bound in two places with sinew.

Basketry;

1 piece of basketry material, of stripped yucca leaves, 3 inches square. Possibly part of sandal or mat. Diagonal technique.

Weaving;

1 small piece of red cotton cloth.

Leather;

8 small pieces.
1 piece of leather with cotton rolled in one end.
2 leather thongs, 4 and 9 inches long.

Miscellaneous;

1 small clay ball 3/4 inch in diameter.
Small fragments of pink pigment.

Potshords;

2 smooth unpainted potshords.
1 black on white shord with complete handle.

4. Bones;

Human Bones;

Section of parietal bone.
2 fragments, possibly of temporal.

Animal Bones;

Several skulls, entire or in part, (Rodentia).
Fragment of skull, unidentified.
4 Lower jaws, (Rodentia).
1 Lower jaw, unidentified, possible carnivora.
Several skeletons of feet and legs, jack rabbits.
Vertebrae, unidentified.
1. skeleton almost complete, (Rodentia).
Proximal end of tibia.

CAVITY U-2. This cavity presented an interesting problem; namely, were the evidences of human life and living purposely deposited in the cavity, or were they merely carried there by pack rats?

1. It was obvious that the rats had occupied the cavity for a long time; evidenced by the manure and nest material, also skeletal remains.

2. All the material excavated or recovered as listed above, moreover, could conceivably have been carried in by the rats.

3. However, evidence of purposeful use of this cavity was found. In the entrance to the cavity, the most accessible place, 16 inches beneath the surface before excavation and well beneath any evidences of rat occupation, was found evidence of a fire, and very possibly of ceremonial life. The latter is inferred because of the presence of reeds, firmly fastened in the hard soil, and embedded with small stones. These reeds were placed in definite relationship to each other, at right angles. One was found standing in a vertical position.

It seems possible that these reeds were placed in position as prayer sticks, although no painting, bindings, or markings of any sort were detected upon them. Our Navajo informant, through our interpreter, said that no such sticks were ever used among the Navajos to his knowledge. Also, he said, these sticks were very old, for no such reeds are found here today. He thought that the Zunis use such sticks for prayer.

CONTINUATION OF THE EXCAVATION OF CAVITY U-2.

Sixteen inches below the surface level of the debris in the cavity were found many reeds set in the ground, securely fastened at their ends by the hard packed and small stones. These reeds seem to be placed in a rather definite position, at right angles to each other, giving rise to the theory that they were prayer sticks.

Stevenson's account of Navajo ceremonials, in the Eighth Annual Report of the Bureau of American Ethnology, 1886-87, and the Handbook of the American Indian, however, tell only of reeds decorated in some manner, - by tying on feathers or other paraphernalia, or at least by painting - which may be called prayer sticks. It is conceivable, however, that these reeds found in cavity U-2 although completely undecorated, might have been used as a temporary or emergency offering. But as excavation proceeded, many more reeds than the first set observe appeared to be placed in such cross positions. Twenty-four ofthese were removed. Above and between such firmly fastened reeds, was a matting or padding of small, unidentified sticks, corn husks, juniper bark and yucca leaves. In one section in the east corner of the mouth of the cavity, slender yucca strips actually were woven in checker board fashion to form a crude mat. The whole matting and reed foundation was embedded in a layer of ash 4 to 6 inches deep, which extended out beyond the mouth of the cavity in a semicircle $1\frac{1}{2}$ ft. in radius. This layer of ash was completely excavated, and along with much charcoal several pieces of feather cord and wrapped corn husk were found.

The remaining surface material from within the cavity was removed, producing enough material to warrant the time and effort involved. Most spectacular was the find of a sandal which had been woven of the filaments of the yucca leaves. It was in a fair state of preservation.

Although it is obvious that the rats had long infested the cavity, most of the surface material seemed to be sorted somewhat; i.e., the raw cotton was found within a half hour; squash rinds and stems appeared commonly in one part of the excavation. The corn cobs and the square knots which were tied in

yucca leaves proved to be ubiquitous; and the cordage appeared pretty well throughout.

The stone forming the mouth of the cavity is blackened by smoke on the east side, apparantly the roof of the cavity is also blackened. The fire or fires appear to have been pretty well at the entrance. This cavity differs from the other four which we have investigated in that it is on the level of the top of the talus slope which may also be a ruin mound.

Above the cavity is a broad crack in the stone. This crack has been sealed with masonry. It was photographed and the masonry removed with high hopes, but there was nothing in the space behind the sealing. Possibly this work was done to prevent the water from dripping into the cavity below.

CONTINUATION OF THE EXCAVATION OF CAVITY U-2.

Following is the list of materials which were found in the excavation of the Cavity U-2 during the following week.

The list has been divided into two parts; surface material listed separately from that found in the ash layer 16 to 22 inches below.

Materials found at the surface.

Agricultural products and other plant materials.

Maize:

Cobs 235

Cob fragments 130.

Stalks 6 fragments.

Husks Several pieces, some charred.

Kernals 1, outer covering only.

Special note; one cob with stick in stalk end,

Squash or gourd;

Stems 5 and a few fragments.

Rind 38 pieces

Seeds 3

Seeds;

Pinon shells

Several unidentified.

Woody plant material;

3 large Yucca leaves.

1 Section of reed, 8 inches long.

2 Sections of reeds 2 inches long.

Several pieces of juniper bark.

Evidence of fire;

1 Charred corn cob. (At least this cob had not been carried into the cavity by rats.

Charcoal.

Charred corn husks and sticks.

Artifacts.

15 square knots tied in yucca leaves.

3 long strips of yucca with overhand knots tied in them.

2 square knots tied in small bits of cord.

1 knotted fragment of cord tied around two yucca leaves.

22 fragments of yucca leaf twisted as though used for thongs.

Cord; 1 piece, 16 inches long.

Cord;
10 fragments of cord 5 inches or less in length.
1 fragment of crude cord made of yucca strips.
5 fragments of cord feather or fur wrapped.
1 fragment of wrapped cord 5 inches long.
1 piece of cord 5 inches long, wrapped with yucca leaves.
1 piece cord 12 inches long, wrapped with feathers.

Basketry;
1 piece coarseley plaited strips; diagonal technique; 4 inches wide by 6 inches.
1 small fragment of yucca fiber, possibly part of sandal.

Weaving;
1 sandal, front part missing; finely woven with design on under side, warp of yucca fiber cord, weft of yucca fiber filaments.
1 fragment of another sandal.

Leather;
5 small fragments.

Potshards;
1 Black on White.

Bones;
1 fragment of human skull. (Possibly parietal).
Many unidentified bones, including,
limb bones of rodents.
limb bones of larger animals.
Fragments of vertebral column.
Fragments of jaws and skulls, mostly rodents.

Materials found at the level of the ash; 16 to 22 inches below the surface.

Agricultural and other plant material;

Maize;
Cobs, 14
Fragments of cobs 24
Stalks 2
Husks, Several large pieces, some charred.

Squash or Gourd;
Stem 1
Rind 27 pieces and many small fragments.
Seeds 27

Other Seeds;
Red Beans, 3.
2 unidentified grasses, one appearing to be a kind of oats.

Woody plant material;
Reeds. Arrow reed set in ground.
8, twelve inches or more in length.
1 24inches long.
15 eight inches or over.
33 three to six inches long.
36 three inches or less.
Special note; one reed 3 in. set in ground in vertical position.
Materials found in association with reeds, forming matting.

1 Yucca leav, 19 inches long.
1 Yucca strip 12 inches long.
Other Yucca leaf strips.
Many small sticks.
Juniper bark.
Corn husks.

Evidence of fire;

Layer of ash 4 to 6 inches deep
Much charcoal and charred wood.
2 Charred corn cobs.
Charred corn husks.
Many fragments of burned bones.
Pieces of adobe mud baked in the fire.
1 piece of clay, fired, bearing impression of reed.

Artifacts;

Cordage and Feather work;

1 square knot tied in yucca cord.
1 cord bound with feathers, 20 inches long.
1 ditto. 6½ inches long
1 ditto 5 inches long.
2 ditto, fragments.
2 fragments of feather cord, showing great thickness at one end.
Bits of feather cloth.
1 Circlet of rope, 12 inches of rope fastened with long splice.
1 rope 20 inches long.
Raw Yucca fiber, unworked.
1-fragment of twisted rope-- yucca.
1- piece of rope 3½ inches long.
7 fragments slender cord 2 to 5 inches long.
2 fragments of large feather (Turkey?)
Bits of fine downy feather.
2 pieces unidentified material wrapped in corn husks 2-3 inches long.
Other fragments of same material.

Worked wood;

1 small stick, sharpley pointed.
1 stick 7 inches long, knob on end.
1 7 inch section carefully rounded stick.
1 large chip of wood, ground to an edge.

Potsherds;

15 Black on White.
4 indented.

Bones;

Several fragments of limb bones, unidentified.
1 vertebra, unidentified.
1 fragment of jaw bone, unidentified.

MATERIALS OBTAINED FROM CAVITY U-1.

Hundreds of corn cobs.
2 pieces corn stalk.
1 gourd or squash stem.
2 square knots tied in yucca leaves.
1 worked stick flattened as part of bow.
Some unidentified bones.

J.

CONCLUSION.

It appears that these cavities were used as depositaries by the people who lived in the talus slope houses. P.S.1 yeilded the planting stick previously described. It is ten or twelve feet above the present ground level and in the vertical face of the cliff. It is approximately 18 inches in diameter and eight feet deep. There were bits of hand shaped mud and stones at the mouth of the cavity which suggested that the entrance had once been sealed with masonry, at least part way from the bottom.

P.S.-2 yeilded well. It, too, had evidence of some sort of masonry across its entrance. The mouth was large enough that it admitted a person. For six feet I crawled along this narrow passage and then emerged into a larger cavity which permitted me to almost stand. It is from this room inside the cliff wall, that most of the materials listed as having been recovered prior to July 6, 1933, were taken. The cavity seemed to have been of natural formation.

P.S.-3 was just a small round hole, two inches in diameter from which I took an arrow shaft.

U-1 did not yeild as well as the others. There was much material of less spectacular nature. It is in the cliff wall above the ruin Kin Klet So.

U-2 is in the same vicinity as U-1. It is large enough that one could crawl inside the entrance, but could go no further. The material was scraped out with a long handled hoe.

This imposing list of materials has been taken mostly from two of the hundreds of cavities which we believe are in the cliff walls of the Chaco. This is a new field for investigation, and one that may occupy us for several years. The P.S. cavities are on land belonging to the Government. I have not opened more of them because we have no place to even store, much less display the material. Our little museum is already over crowded.

The U cavities were opendd under the direction of the University of New Mexico Field School. I represented the School and the work was done under my supervision by the students. Mrs. John Y. Keur, anthropologist, of Hunter College. New York, did most of the careful, painstaking, important work.

The presence of the feather cloth, similar to that in shrouds, and the bits of human bones, does not, in my opinion, lead to the hope that we will find, in the cliff cavities, the solution of the mystery of the disposal of the Chaco dead. We must search for the dead in another place. While I should not be surprised to find several bodies in these cavities, I do not think that there will be enough of them found to make a great deal of difference in the obscurity surrounding the fate of the bodies of the thousands of people who must have died in the Chaco.

Hurst R. Julian
Custodian, Chaco Canyon
National Monument.

And while we are putting reports into the record, here is a letter which Mr. Heatoh, of Pipe Spring National Monument, wrote in answer to an inquiry about his monument.

In the year 1856 President Young, of the Mormon Church, sent a party

of men into northern Arizona and on into the Navajo Country to make peace with the Indians.

At a camp made at what is now known as Pipe Spring National Monument, while on this trip, some of the men began to banter 'Gunlock' Bill H amblin, who was the best marksman in the company. They claimed he could not shoot a hole through a silk handkerchief hung up by the two upper corners only at a distance of 50 feet. Bill took the wager and shot several times but failed to make the holes in the piece of silk.

Probably thinking there was some trick about the matter, Bill turned to Dudley Levett and said; "If you will put your pipe on that stone by the spring so the bowl points toward me, I will shoot the bottom out without cracking the rim." The pipe was put on the rock, Bill took aim and fired and the rim of the pipe bowl remained on the rock. From this episode comes the name of Pipe Springs.

The next date of interest is when Dr. James M. Whitmore and Robert McIntyre came to Pipe Springs to start a cattle ranch in 1863, building and living in a dugout just east of the large fort. In the winter of 1866, on January 8th, the Navajo and Piute Indians took the sheep belonging to Whitmore, and when the two men went out to get them back they were killed about four miles southeast of their home.

Whitmore had one of his sons with him that winter, who was eight years old, and when the men did not return at night but Indians came and took all they could carry off without entering the dugout where the little boy was, the next morning the boy started to walk to St. George, Utah, 96 miles west. When about ten miles from Pipe Springs, he met some men coming toward the Springs. Word was soon sent in and the Utah State Militia came out and soon took revenge on the Indians. Six Piutes were killed and I have learned just this spring that none of them were with the Indians who took part in killing the white men.

From the Whitmore estate, the Mormon Church bought Pipe Springs for a place to build a fort for protection from the Indians and also for a cattle range to take care of the Church tithing cattle. The fort was built in 1869-70 under the direction of Anson P. Winsor, whence it is sometimes called Winsor Castle. It afterward came into the hands of private owners and continued to change hands until 1923 when Johnthan Heaton and sons transferred the title to the United States to be made into a National Monument.

Pipe Springs became the first telegraph station in Arizona when the Deseret Telegraph line reached Pipe Springs in December, 1871. This line is still in use as a telephone line running into the town of Kanab.

The purpose of making Pipe Spring a National Monument was to preserve this fort as a relic to Western Pioneer Life. It is the only Monument we have in the west that is kept by the United States as a monument to western pioneers.

Our hope is to restore the fort to its original state with what furniture we can get of the old pioneer days and arrange it in the rooms as it was when the fort was in use in 1870 to 1880.

I might add that up until 1918 there was watering here every day 2,000 to 5,000 head of cattle depending on the time of the year. Also that it was from here that the big herds left for market, consisting of 1,500 to 3,000 head to the herd and four or five herds going out each spring and fall.

ATTENDANCE RECORD
FOR
SOUTHWESTERN MONUMENTS

As reported by wire to the
Washington Office Oct. 1.

Monument.	1932	1933
Arches----------	480	425
Aztec----------	8322	7546
Bandelier---------	4169	3906
Canyon de Chelly---	395	435
Capulin----------	25000	14000
Casa Grande--------	21895	21771
Chaco Canyon-------	2725	5817
El Morro----------	2700	2467
Gran Quivira-------	3844	3563
Great Sand Dunes---	500	550
Hovenweep----------	400	425
Montezuma Castle---	14000	13899
Natural Bridges----	344	654
Navajo----------	300	375
Pipe Spring--------	2100	2548
Rainbow----------	325	385
Tumacacori---------	13758	8869
Wupatki----------	850	1250
White Sands--------	---	12000 part year.
Yucca House--------	240	300
Total. --------	102,342	101,185

Attendance records, alone, don't mean very much. It takes a lot of explanation to make them talk and then, if you don't look out they won't tell the truth. Some places we have a lot of visitors to whom we can give no service because of a lack of personnel. You can't look at the above table and tell much about what we have done this past year.

I think we will overhaul our methods of keeping track of visitors this next year and see if we can't make these figures do some talking on their own account. At present, from the places where we have men stationed, one man reportes only those visitors who are guided, another reports all who enter the monument, which is a widely different figure from those actually guided, another doesn't count his visitors but guesses at his attendance. As a result of all this, the figures are rather sketchy when it comes to basing plans on them looking toward development in the future.

As comparative figures, this table will do pretty well, though there one or two places where a change in methods of counting has weakened the figures for comparison. In general, however, since the same methods have been in use at most of the places for several years, comparisons will be pretty accurate in showing increases and decreases. Reasons for increase and decrease vary widely and are not shown in the figures; each change needs its own explanation.

M.

PERSONNEL.

As we write this word comes to our desk that Mrs. Hurst R. Julian her appendix removed, the operation taking place at St. Mary's Hos- l in Gallup, New Mexico on September 28. She was resting at the of writing and recovering nicely. She expected to be out of the ital on October 7 but would remain in town with friends for some time re trying to make the 100 mile trip back to the Chaco over those h roads. Congratulations are in order to Winnie for having come through operation successfully and getting rid of a very troubesome appendix. y five miles from a doctor is no place to have an appendix go to skipping ches on you and some of us have worried a good deal this last year or ver the possibilities of that situation.

Gay Rogers is lamenting the loss of three of her most cherished which were broken in the recent move of her furniture from Tumacacori Chandelier. She says that, all told, that leaves six cups with three ctics present. Also the movers broke some knobs and pretty jiggers her furniture. And worst of all, while she was down here seeing to moving of the furniture she got some Mexican blue glassware across the at Nogales, which she valued so highly that she carried it back with to protect it, and then after getting it to the top of the Canyon, had roken on the way down to the quarters. The Boss is happy, Gay, that as 900 miles away when you were unpacking that stuff up in the Ranger ters! Suppose we invent some rubber dishes and cast iron furniture h explodes when a knob or jigger is carlessly broken off? Bill and ge might be surprised to handle a piece of your furniture too roughly the next moment find themselves explaining to the gentleman with horns they got there and what they were doing with the right hind leg of dy's dressing table in their hand.

Johnwill Harris lost a trip to the coast last month. He wired us to sure he had annual leave coming; packed the old car; and ten minutes be- he started, got a wire from Dorothy that she was on her way home.

Bob and Marie Rose had a pleasant trip up to Pipe Springs National ment during the month. Bob was looking into water distribution matters his report will be ready for the Washington Office soon.

Jack and Mrs. Jackson, from the Montezuma Castle National Monument, an interesting boat trip down the Verde River to the Salt and thence the Salt to Phoenix. We hope Jack will write it up for the next ly report.

Ranger Martin Evenstad is settling down like an old timer at Tumaca- National Monument. We had to go down at the end of the month to him to sign the pay checks and found him hard at the job of showing tors the interesting features of that monument.

Miller has also settled down and become one of the Southwestern Monu- s gang. He certainly struck us at about the worst time a book-keeper general accountant could pick out. Not only do we get orders for a

N

new kind of a report about once a week, but a couple of times we have received orders on how to make up the books a month ago and it is far from pleasant to tear a set of books apart and put them together again about four weeks after the events have happened. Nobody realizes better than us that the Washington Office has been having a rather hectic time of it during the reorganization, but the field men have been running circles around themselves too.

And with it all comes the gentle snow from Heaven in the way of banks of white paper covered with rules and regulations and orders and reports and instructions on the ECW and the C.C.C. and the NIRA and the Public Works Act.

While at Pipe Springs, Bob Rose met Harry Langley and they went over proposed developments and maintenance at that Monument. Leonard and Mrs. Heaton had Harry, an assistant, Mr. Stevenson, a Union Pacific photographer, Bob and Marie at lunch. The citizens of Moccasin gave a chicken roast in honor of the Park Service personnel represented there that day but Harry and his party had to return to Zion. Dutch oven chicken, home made bread and appetites sharpened by cool brisk weather combined to make the occasion very successful.

And we are going to have a winter camp of the C.C.C. in Bandelier, so there won't be much chance for Ed and Gay to get lonesome for lack of folks around, and we are going to find some new slants on trying to keep track of the paper work of such a camp with headquarters 900 miles away.

We aren't throwing up the sponge yet, but how much extra paper work will it take to entitle us to an extra clerk? It seems to me we are handling about as many thousand square feet of paper per month as some of these quart size parks that rate two or three folks on the office force.

Anyway, we lived through September and had a good deal of fun doing it, so we will do our best to worry through October and here's hoping the worst of the re-organization is over and we can settle down to the business of taking care of the winter tourists. Southwestern Monument employees please note that all this ruckus of roads and trails money, C.C.C camps, Public Works Act money, paper work, and every thing else, is based on Mr. and Mrs. John Doe and the kids and good service to them. Good service is aided by all these things, but it doesn't absolutely depend on them, and it may sometimes be absent when they are present. Good service first, Loyalty second, and it is only a matter of time until the other things come.

Cordially,

Frank Pinkley.

Frank Pinkley.
Superintendent.

O.

10-159
ay, 1931)

UNITED STATES

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

STATUS OF PERSONNEL

Southwestern National Monuments National Park for the Month of September, 1933

	This Month		This Month Last Year	
	Appointed	Non-Appointed	Appointed	Non-Appointed
ıber of employees beginning of month	29	4	30	1
ıber of additions	0	28	0	37
Total	29	32	30	38
ıber of separations Reported by Petrified Forest	9* 2	16	3	37
ıber of employees close of month	18	16	27	1
ıber of promotions during month	0	0	0	0
ıregate amount of annual leave taken	1	0	0	0
ıregate amount of sick leave taken	1	0	0	0
ıregate amount of leave without pay	0	0	8	0

*Personnel for Petrified Forest National Monument will be reported by that monument as an independent unit.

UNITED STATES

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

STATUS OF PERSONNEL

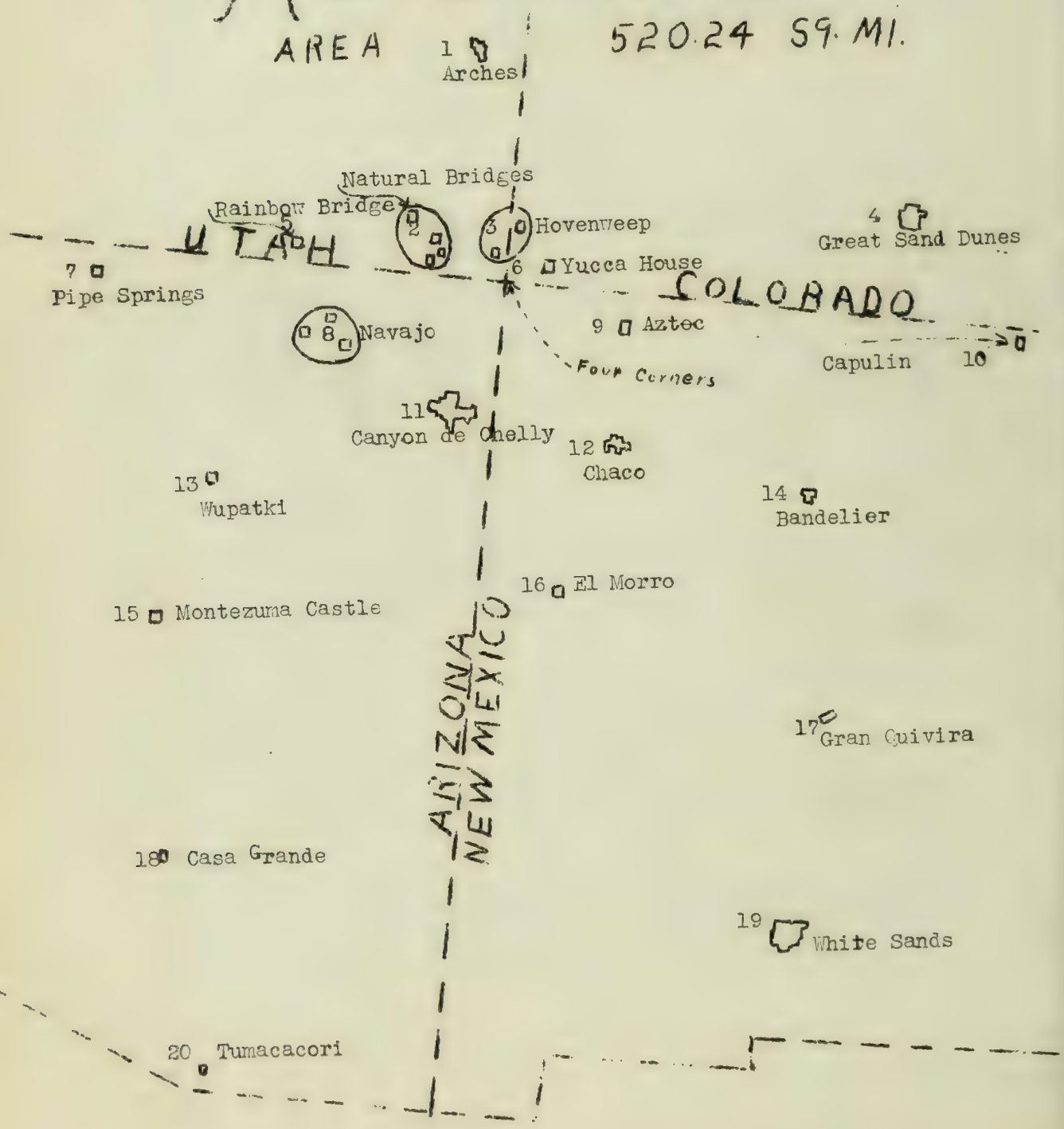
Yosemite National Park for the Month of December, 1931

	This Month		This Month Last Year	
	Appointed	Non-Appointed	Appointed	Non-Appointed
of employees beginning of month	22	4	20	1
or additions	0	23	2	32
	22	22	22	23
	5	14	0	22
of employees close of month	16	16	22	1
of promotions during month	0	2	1	0
e amount of annual leave taken	1	0	0	0
e amount of sick leave taken	0	0	2	2
e amount of leave without pay	0	2	2	2

Personnel for Detailed Report National Summary will be reported by this department as an independent unit.

SOUTHWESTERN MONUMENTS

AREA 520.24 SQ. MI.



SOUTHWESTERN MONUMENTS

MONTHLY REPORT

OCTOBER 1933

IN MEMORIAM

This cover is left unillustrated as
a memorial to our valued friend
and trusted coworker, Edgar Rogers.

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UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF NATIONAL PARKS
BUILDINGS AND RESERVATIONS
SOUTHWESTERN MONUMENTS

Coolidge, Arizona, November 1, 1933.

The Director,
Office of National Parks
Buildings and Reservations,
Washington, D. C.

Dear Mr. Director:

October has become a matter of history, the checks have been issued and it remains for us to tell you what has been happening among the Southwestern Monuments for the month.

The event which startled and shocked us most during the month was the death of Edgar Rogers, Custodian of Bandelier National Monument, which occurred by his own hand on the morning of Monday, October 16, 1933.

Chief Clerk Hugh Miller and myself were on the way to Bandelier to help Ed. out in the matter of the 3C camp which was to be put in his Monument this winter. We had gone from Headquarters at Casa Grande National Monument to Petrified Forest National Monument on Sunday, the 15th. On the 16th Mr. Miller and Mr. Smith had some matters to talk over and we then left the Forest at 10:30, expecting to stop for the night in Albuquerque.

Some time after we left Mrs. Smith drove to Holbrook and found a wire from Mrs. Rogers saying Ed had killed himself and asking if she could come. The Smiths immediately tried to communicate with us and did get a wire to us at 5:30 in Albuquerque through the police force who were on the watch for our car number. We of course went on into Santa Fe that night and telephoned out to the hotel at Bandelier, but, finding that everything possible was being done and that we could be of no use that night, we stopped over in town.

Mrs. Smith had come through by bus the next morning at 5:30 and she and I left town at 8:00 and went out and brought Mrs. Rogers in with us. She remained with us until Wednesday after the funeral when she and Mrs. Smith, Mr. Miller, Walt Attwell, who was there on engineering business, and myself went back to Bandelier and spent the night at the hotel. Thursday morning we went up to the house and straightened things up somewhat and did some packing. Thursday afternoon late, Mrs. Smith, Mr. Miller and I returned to Santa Fe and started on the return trip to the Forest Friday morning.

Fortunately Mr. Attwell was in the Canyon when the death occurred and Mr. Vint and Mr. and Mrs. Richey were just checking out of the hotel in

ta Fe. Mr. Lyle Bennett was also in the Vint party. Thus there were e Park Service people in the Canyon with Mrs. Rogers within an hour. Mrs. y, at the Hotel, did everything possible.

The inquest was over a little after noon and the body was removed the mortuary chapel in Santa Fe. The funeral ceremony was held from the pel at 10:00 o'clock Wednesday morning and burial was made at the beautiful etery at the edge of the city. Five Clarkson drivers, with whom Ed had ked for several years, and one Park Service man, acted as pall bearers. services were simple and impressive.

We were never able to put our finger on a single cause for Ed's . Everything, his financial affairs, his home life, his official affairs, ned to be breaking in his favor. As you know, he had recently been pro- ed. He was doing his work well. His monument had every chance to grow he to grow with it in the next few years. Yet he had despondent streaks I am inclined to think he has contemplated this action off and on for some e. With such a background, he needed no immediate cause for the last act. simple a thing as digging around in his bag for something else and running to his gun might have snapped the final circuit in his mind and carried over the line where he had often hesitated.

He did his work well and we who knew him will miss him as we go about duties and regret his passing.

Mrs. Rogers will continue to hold her place in the hearts of the Park vice family of the Southwestern Monuments, and we hope that she will tinue to feel that we are her folks.

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On Friday the 20th, we left Santa Fe and went across a short cut d through Cuba to Aztec National Monument. We got in there about four lock and remained until nine when we went on down to Farmington for the ht. We thus had a chance to see the ruins and get about thirty pictures be used in the Six Year Program, Mr. Miller had a chance to meet the is family and we all had a chance to enjoy some more of that chicken vy, which you only know about by hearsay, but which Johnwill and Dorothy h you would know about from experience when you come west next summer.

On Saturday, the 21st, we drove from Farmington through by Chaco Canyon ional Monument to Gallup for the night.

Here again Mr. Miller had a chance to get acquainted with Hurst and nie Julian and we got thirty or forty pictures for use in the Six Year gram and talked over some of the problems of that monument.

On Sunday, the 22nd, we drove to the Petrified Forest National Monument remained there the rest of the day.

On Monday, the 23rd, we drove down over the mountain to headquarters Casa Grande National Monument.

While we were in Santa Fe we met the Army and the Forest Service on tters connected with the 3C camp which will move in on us about November 10th got fairly well acquainted with the paper work connected with the camp. camp we are getting has the highest rating of any in that district. It is r the supervision of a former State Highway Engineer who knows road and l work from A to Z. We are taking his outfit over practically complete

with the substitution of two landscape foremen in place of two forestry foremen. This means that the camp ought to shake down in a few days and go right to work. We are going to have Walt Attwell with us as Engineer and he and Mr. McGill will get the greatest efficiency possible out of the camp.

Lieutenant Roberts, who has been in charge of the construction of the camp ~~[illegible]~~ told me he would also be there during the winter, a thing that pleased me very much for I am sure he will be a fine man to work with.

In fact, the set-up as it now stands is so good I am going around with my fingers crossed.

We have sent Martin Evenstad up in temporary charge of Bandelier and his famialarity with forms and paper work guarantees that with an enrolled man under him to do the actual work, that end of it will be well cared for.

It looks like the Engineering Division are going to back us up with stake trucks, dump trucks, caterpillars, bull dozers and other heavy equipment and the camp ought to come to us with enough small tools, so, if our present promises are made good, we are going to be able to put it up to Walt and Mc and find out how good they are.

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Report of Ass't Sup't Bob Rose.

On Sunday, October 29th, the Staff of the Museum of Northern Arizona conducted a conference on the progress of excavations at Wupatki National Monument.

Leaving Coolidge on the morning of October 28th, I arrived at Flagstaff on the morning of the 29th, having spent the night at Williams. Before proceeding to Wupatki I contacted Mr. Lyndon L. Hargrave, Field Director of the museum of Northern Arizona. My early arrival at Wupatki gave me an opportunity to discuss excavation and C.C.C. camp problems with Dr. H. S. Colton, Director of the Museum, for about one hour.

At 3:30 p.m. about 100 members of the Northern Arizona Society of Science and Art, benefactors of the Museum, gathered at Wupatki to hear Director Colton and Field Director Hargrave discuss the results of archaeological field work during the past season at Wupatki. Needless to say, I was greatly impressed with the manifestation of interest in Wupatki and in the scientific activities of the Museum of Northersn Arizona. Picture, if you will, about 100 of the civic and cultural leaders of the City of Flagstaff driving 45 miles to Wupatki over 25 miles of highway deeply rutted and dusty because of construction and 15 miles of crooked, bumpy, unimproved road to complete the journey. One must conclude that this interest is active and genuine.

The ampitheater consisted of a circular structure more than fifty feet in diameter which resembles a Kiva in that it has a banquette, and there the similarity ends. Excavation and repair of this peculiar project, along with the excavation and repair of a rectangular room Kiva are among the fine achievements of Field Director Hargrave and Staff. They have cleaned and restored rooms, repaired walls, and carefully studied field relations of their finds. There remains much to be done and the Museum hopes to resume careful scientific work next field season.

Work contemplated by the C.C,C camp was explained to me by Dr. Colton

Mr. Hargrave. Trails to make structures more accessible in instances, ng debris away, mapping, and other work are contemplated upon establish- the camp. Dr. Colton pointed out the need for recreation for the men we shall give this problem careful thought.

Mrs. Colton, assisted by the Museum and Field Staff, served appetizing eshments of sandwiches and coffee. During the course of the Conference I/4 s invited to make a few remarks on the relation between Wupatki, the onal Parks organization and the community.

Both before and after the program I spent some time getting pictures ing the present condition of the ruins.

I was particularly pleased to have this opportunity to meet Dr. Colton his Museum staff. They have been most generous in assisting us along ous lines in museum work in the Southwest. The Museum of Northern ona is also among the comparatively few institutions that are making a ine success out of the popularization of scientific information.

At the gathering I was pleased also to see Mr. Berton I. Staples of fts del Navajo' Coolidge, New Mexico. Seeing him recalled a pleasant t Dr. Russell and I had there in May visiting the Wayside Museum of aeology. Through the generosity of Mrs. H. S. Gladwin, Mr. and Mrs. win and Mr. Staples have developed there a most interesting and appealing um lay-out. A visit there is well worth the museum scholar's time.

Mr. Woodward, publisher of the Southwest Tourist News, was also at tki and I was pleased to renew acquaintance with him.

Leaving Wupatki I drove to Flagstaff for the night. On the morning of 30th I spent one hour at the Museum of Northern Arisona completing our issions of excavations and C.C.C. camp matters. I was interested to several popular museum projects completed or nearing completion which had been started when Dr. Russell and I had been there in May.

From Flagstaff I drove to Montezuma Castle National Monument by the tiful Oak Creek Canyon route. This is really one of the outstanding ic drives of the west. Here on a large scale is some of the scenic quality the Grand Canyon and Zion combined.

At Montezuma Castle I found Mr. and Mrs. Jackson and their son Earl ying some of the season's finest weather. The C.C.C camps in the vicinity given Jack some very heavy Saturday and Sunday runs. This reminds me ention the fine Park Service signs which I saw clearly directing the way ontezuma Castle. A person trying to find Montezuma Castle would have to lind to get on the wrong road now. We of the Southeastern Monuments spend a considerable portion of our time doing guide and public contact , know that people appreciate these services that the Government has done.

After a couple of hours at Montezuma Castle I proceeded to Casa Grande onal Monument, finding that in my brief absence of three days uncomfortably weather had given way to brisk, cool conditions. The cooler weather will g increased travel to Casa Grande and Tumacacori. The genuinely in- sted type of visitor to Arizona is now beginning to show up, all of which rially increases the pleasure of doing guide services for them.

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I wish to acknowledge the kindness of Dr. R. H. Forbes, Director of University of Arizona Experiment Station in sending us an Experiment

Station Bulletin describing some of the features of the prehistoric canals of the Gila and Salt River Valleys. I wonder if it is generally known that a short distance from their take-off from the river, the ancient people provided settling basins which allowed the sand and silt carried in the water to be deposited thus making it unnecessary to clean the canals so often? Equally ingenious was the practice of digging a small steep-walled channel within the broader canal channel thus allowing waters in dry weather to be confined to the smaller channel. This arrangement materially decreased seepage and evaporation losses during the period of scant water-flow in the rivers. Prof. Forbes had an absorbing interest in the archaeology of this region. We derived profit as well as a great deal of pleasure from his visit. In the Supplement will be found another reference to this visit of Dr. Forbes and his comments on how the prehistoric canal courses were determined.

This cooperation of individuals and institutions of high standing with our Service is one of the things we should always appreciate and maintain.

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The Casa Grande Museum has just come into possession, by loan, of a remarkable group of artifacts found in association with a cremation burial. The materials were found outside the monument by Mr. Leonard Spruall who has loaned them to us for exhibit purposes.

Mr. Spruell first brought in five small moulded head pieces which were undoubtedly mounted on small canes or wands by the ancients. The quality and style of sculpturing and moulding seem to bear a remarkable resemblance to articles found in Mayan excavations. The indentations and facial characters are executed with a precision not commonly found in true early period. Sculpturing and ornamentation in the early period in this region are crude.

A few days after making this loan, Mr. Spreull startled us again by bringing in two small red-on-buff saucer vessels with massive crouched human figures supporting them, Except for one broken leg, one human figure is quite intact while the arms and one leg are missing from the other. The more intact figure sits as a man would sit upon the floor with legs bent up in front of him, feet flat on the floor drawn close and hands placed on knees. The figure with three limbs missing gives evidence on its broken parts of having had arms and legs in about the same position as the first. Each figure supports the shallow saucer type of red-on-buff vessel on its head. The saucer supported by the more intact human figure has its concave bottom next to the head and about one half of its rim present. In other words it has only 1/3 to be restored to be perfect. The other has 2/3 of its rim portion gone. With 1/2 restoration this vessel would have its original form.

We do not share the enthusiasm of those who consider the Ho-ho-kam of this region a direct offshoot of the Mayan culture: we maintain only that some Mayan cultural influence did extend as far as the Gila and Salt River Valleys and found expression here and there in the early Casa Grande culture. We have to guard vigilantly against placing too mucheredence in superficial resemblances and too limited comparisons. Vaillant, in his paper, "Some Resemblances in the Ceramics of Central and North America," published in the Medallion, of the Gila Pueblo, 1932, clearly sounds the warning. This author discusses several characteristics in ceramic arts, figurines found by Woodward, and mixtures of elements found in Casas Grandes pottery south of this region which indicate ultimate northern penetration of distinctly Central

rican traits. Tripod supported vessels also indicate a penetration of thern influence.

These finds are among the most important ones ever made which indicate Mayan or Central American influence on the early period of Ho-ho-kam upation.

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orts from the various monuments for the month of October follow:

EC RUINS NATIONAL MONUMENT, Johnwill Faris, Custodian.

"Visitors for the month total 528. This is almost up with the same th last year. The weather has been ideal and the conditions for travel ellent, but the travel is not going through the country.

"Chuck Richey was kind enough to drive down from the Mesa Verde the early t of the month and we went over the general layout for the new building a report to your office was received from Chuck about the tenth of the th.

"Near the middle of the month we were again favored with a visit from landscape department. This time Tom Vint, Mr. and Mrs. Richey, and nett from Mesa Verde all stopped with us and we spent a portion of the ernoon going over the new building and taking measurements, etc., for the ns.

"Just prior to this visit I made an official trip to Santa Fe, and while re held a conference with Department Archaeologist Jesse Nusbaum, relative lding material and needs for repair. It was as a result of this visit t a report was made to the Washington office on need for repairs, and a y of the same was mailed to your office. I want to again mention the fact t I most certainly appreciate the cooperation and assistance of both the dscape and Engineering Departments and their men in the field. Especial dit do I give to Engineer Hamilton, and Chuck Richey for their untiring istance. Without these boys to help us I do not know what we would ever

"We were particularly favored this month with a visit from our own folks. the 20th 'The Boss,' Mrs. White Mountain Smith, and Hugh Miller dropped in us and not for many moons have we spent so enjoyable an evening. It was first time Mrs. Smith and Miller had ever been inside our house, and now t they have the ice broken we want to entertain them often and of course want them to bring the Boss with them.

"The trees are taking on the most beautiful colors and if only some of other boys could see the Ruins now, I know you would find all the Custodians gregated at the Aztec Ruins. That's all right, Boys, we can not all have best ruin, and in this case I am just fortunate.

"We were most sory to hear of the tragedy at Bandelier, and will always remember with the greatest of pleasure the times that we were shown the features of that monument. Our deepest sympathies go out to Gay and we are offering ourselves and our resources to her at her wish.

"We are getting quite the reputation as something. A couple from Durango was down the 24th and were married in the Kiva. This is the second time such has happened this year. How about some souvenir for the bride, Boss?

"With every good wish to the entire force, I am, "

BANDELIER NATIONAL MONUMENT, Martin O. Evenstad, Acting Custodian.

"I arrived here on the afternoon of Monday the 23d. Found that Engineer Attwell had already left for Devils Tower. Met Lieutenant Roberts who is with the CCC camp. Found the construction of the barracks well under way, with a crew of about 30 men on the job. The lieutenant informs me that the CCC boys will move in about the 15th of November, when they expect to have all the necessary buildings completed, and water developed for the camp.

"I find this a most interesting place and so far have found the present personnel connected with the CCC to be a very fine bunch. The construction work is going on with real enthusiasm and the men in charge are looking forward to an interesting winter of work.

"Based on the actual count up to October 15, and estimating for the travel for the balance of the month the total travel for October is 340. The weather is very fine and favorable and the coloring of the dying foliage on the trees along the Rito de los Frijoles is gorgeous.

"The Acting Custodian has been kept busy since his arrival sorting various correspondence in the desk, cleaning house and getting started lining up on the duties he will be taking up under the ECW program. Had a most interesting trip through the various ruins along the canyon wall with Mrs. Rogers acting as guide yesterday.

"Best regards to the Bunch."

CASA GRANDE NATIONAL MONUMENT, Hilding F. Palmer, Custodian.

"Monthly report time has once more rolled around and we come up smiling to tell about the many important and interesting happenings at Casa Grande.

"Our visitors, although not quite as numerous as the same month last year, are showing a decided turn toward the more interested type. This is, of course, to be expected at this time of the year, which is the beginning of our busy season. Last October there were 1,847 who made the guided trip through the

ns and museum, and this year 1,751, a slight decrease of 96. There were ever 282 people who entered the monument and used some of its facilities, h as picnic grounds, comfort stations, etc., but who did not require guide vice. Of the 1,751, 1,049 were from Arizona, 301 from California, and 77 n Texas; the balance came from 35 other states, 3 territories and one foreign ntry. They came in 524 cars. They were personally contacted on 233 trips ough the ruins of Compound A and 224 lectures in the museum.

"The weather the first of the month was unseasonably hot, but the last days have been of that unsurpassable Arizona kind and life in a uniform once again seemed better. The maximum temperature was 104 on the 1st, and minimum 45 on the 20th. The mean maximum and minimum for the month being nd 62 respectively; total precipitation was 1.90 inches, of which 1.50 es fell during the $1\frac{1}{2}$ hours on the 9th. This rain did considerable damage oad shoulders and ditches. There were 26 clear, 4 partly cloudy, and 1 dy days.

"The Public Works program is going along nicely. All force account projects started. The camp ground development project is 90 percent complete, work has been temporarily suspended on it on account of need for the men ring on that on other jobs. Report of completion can be expected next month. ject 119, Repair of two quarters, is also nearing completion and this ject will also be finished during November. Quarters No. 3 has been given outside coat of stucco and the interior has been redecorated and put in d condition. Quarters No. 2 has also been given an outside coat of stucco the interior is undergoing a complete remodeling. This building was the museum and had never been finished suitably for living quarters. A new d floor was placed on top of the old cement floors which were badly cracked. wo-coat job of hardwall plaster reinforced with chicken wire was put on r the old sand plaster. Carpenters are now building kitchen cabinets and k boards, closets in the bedrooms, etc. When this is completed the floors l be varnished, the walls kalsomined and the wood work painted. Although n completed it will not be the highest class house on the monument, it will as far as interior finish is concerned, modern and very comforatable. An irely new built-up 10-year guarantee roof was also installed on this lding. The outside of both these quarters is now completely weather-proof. ject No. 120, Water Extension, will also be completed very shortly. This k consists of replacing all $\frac{3}{4}$-inch lines with $1\frac{1}{2}$-inch lines and running inch fire lines with hose valves. These valves will set about 8 inches ve the ground level and two have been placed near each building. The plan s been to bring two lines to each building at such a point that two 50-foot ngths of hose would reach any part of the building. The storage capacity ll be increased from 1,000 gallons to 2,000 gallons as part of this project. en it is completed, although we will not have adequate fire protection, it ll be enough so that in case of fire at any building it will be possible to event it spreading to adjacent buildings, although we would be helpless to t out any fire that had gained headway. We have very little fire hazard be-use of the type of construction and when this project is completed our nger of fire loss is going to be small, especially since each building is

equipped with chemical fire extinguishers.

"Project 121 is well under way. This project is walls around the Administration Building and will simplify our problem of handling visitors. Foundations are partly in and adobes are being made. Project 122, a new residence, is in the preliminary stage. This project will be contracted. Sketch plans have been submitted and working drawings will be ready soon so that possibly bids will be out by December 1 to 15. Plans are delayed because of the rush of work in the San Francisco office on park projects that cannot be carried on in the winter. Down here at Casa Grande the winter climate is so "ideal" that we can work straight through.

"All of these improvements were badly needed. The camp grounds are now in excellent condition and our many visitors have a place unsurpassed for enjoying themselves before or after their trip through the ruins. Employees will be in much more comfortable quarters, the administration area will be much improved in looks, and the visitors can be handled much more easily and vandalism will be decreased; our fire hazard will be much reduced.

"Assistant Architect Langley made an inspection visit during the month and settled several little problems that were worrying us. He accompanied Superintendent Tillottson of Grand Canyon on a trip into the southern part of the state. Harry sure knows his "stuff" and we are always glad to see him.

"Finally, everyone is busy and happy. We are trying to put out a good brand of service to our visitors and the Public Works is doing a lot of good around this section.

"The stray cat situation is in status quo."

CHACO CANYON NATIONAL MONUMENT, Hurst R. Julian, Custodian.

"There were 532 visitors at the Chaco Canyon National Monument during the month of October. A few interesting facts are observed in the register. There are nine states, New Zealand, and Tasmania represented. On one day ninety Colorado people signed the register, and some of the visiting Mayors and Commissioners who attended the convention in Phoenix stopped by with us.

"The Rotary Club of Durango, Colorado, was with us Sunday, October 22, and the number of visitors varied from day to day with ten on the lowest days to 127 representing the busiest day.

"Our distinguished visitors include Mrs. White Mountain Smith, of the Petrified Forest, Mr. Frank Pinkley, and our Chief Clerk, Mr. Miller. Mr. Miller took thirty-three photographs of pressing needs at the Chaco. They represented falling walls, eroding masses, need of improvements, and the sad story of the inroads of the Chaco wash on some of our great ruins such as Pueblo del Arroyo.

"The state magazine, "New Mexico," has announced that they will publish ;ree thousand word Chaco article in the October issue of their publication. .o Station K O B is to broadcast the same material. The American Legion ;hly has asked for a similar article, and the Rotary Magazine has requested ; I write one for them. This at first hand appears to be considerable work he typewriter for me, but it is not so difficult because I have written of it for various newspapers during the past year. These newspaper .cles are combined in sufficient number and in such manner that the required gth story is obtained.

"I wish to make public announcement of a belated but just recognition of efforts of Dorothy L. Keur in connection with the report which was issued the last Monthly Report to the Director. Mrs. Keur not only did ". . . . of the careful, painstaking, important work" in connection with the matter he investigation of the "Cliff Cavities," but wrote most of the catalogue aterials and some of the interpretations as well. I think that this last t was not made clear in the original report.

"There is an Indian Service engineering party in the field making a survey the Crownpoint-Chaco Canyon road and the state maintenance crew has been at on the old road, putting it in shape to handle the traffic temporarily. ing without funds, and the road having been impassable by recent heavy rains, as been necessary that I work several days on the highways. With the unteered assistance of the neighbors, including the moving spirit of the edition, Mr. A. P. Springstead, the concessioner, we labored mightily. inage ditches were dug, holes filled, and other emergency repairs were made. Superintendent of the Eastern Navajo Agency loaned us five Indian assis- ts for this work.

"Nothing has been done during this month on the cataloguing of museum cimens. It begins to look as though that job will be postponed until some ticularly snowy and blustery period of the winter. Just now the weather fine and the ground is not frozen, consequently I hope to get all the dirt ing jobs done before it is too late. The inside work can be done at any e that the weather makes it impossible to haul dirt."

MORRO NATIONAL MONUMENT, Evon Z. Vogt, Custodian.

"The weather has finally changed to October normal as President Harding d to say. Up to this time the fall has been anything but normal. It has n so mild that corn did not freeze until the 16th, a month later than usual.

"But we had a long slow rain on the 15th which brought a few clear nights after it cleared up and these nights were cold enough to put quite a crimp green growth.

"Grass continues green and owing to filling up of water holes and lakes in the grazing conditions are good. This is mentioned for western New ico is essentially a grazing country what with thousands of sheep owned by ricans, not to mention some 35,000 owned by my friends the Zunis and well r a million by the Navajos. The cattle also turn the grass into a living many cow men though prices are not so favorable for them as for the sheep ers.

"Farmers are getting in their beans and corn, and selling what they can. Prices are slow, however, but there seems to be a cheerful feeling abroad at any rate.

"At El Morro the physical conditions are fine. Grass is tall, flowers still blooming, birds lively in the trees. A few tracks of wild cats in the wet sand around the Monument and a coyotte track trotting along the trail from the Camp Site in the Pine Tree Cove. Pack rats are making themselves at home in the comfort stations and laboriously building nests in which they are storing the few pinon nuts that grew on our pinon trees. We had to disturb the process of building these homes where they would interfere with human needs.

"The pinon crop generally is light, having been weakened by the heavy fall rains so that above the needs of the pack rats and pinoners or pinon jays there seem not to be enough to pay any one to go nutting on a large scale. However some of my Navajo neighbors have gone out to Cerro Alto, 15 miles south of the Monument and are bringing in fair gatherings of nuts which bring 6 cents per pound in trade at the trading stores.

"There has been no damage at our Monument since Mr. Peterson left. I went over everything very carefully and included in my inspection the inscriptions first, the pictographs, the ranger cabin, bridge, reservoir in the cove which is full to overflowing, roof of ranger's cabin, which I am going to give a coating of tar soon. No cans, no trash, just two banana peels to spoil nature's grandeur. The fence needed some repair in places and I am taking out a few short strands of wire to replace a spot where there are but three wires when four are needed. One wire was taken off for about 100 feet by some one needing a tow rope for a broken car, a resourceful little habit which often occurs in these parts where bad roads live forever and cars have short lives.

"The distressing thing at El Morro is the way the erosion is eating the soil away from the south side of the cliff from the De Vargas inscription on to the big arroyo. Unless we tackle that job soon we will have another deep arroyo parallel to the other one. I am counting on the landscape engineers of the Park Service on helping us out on this problem before another rainy summer comes along.

"The roofing paper caps placed by Ranger Peterson over the translation signs are very effective I think and do the work well enough.

"The west gate is in bad repair so I am planning to put up the iron gate which we have stored in the cabin and which was bought for this entrance to our grounds. I will have to get a good cedar post and replace the one which has been up many years and now rotted out so as to weaken it. The east cattle guard needs some concrete on the ends of the rails to keep them from bouncing loose and I hope also to get this done the same day I fix the west gate.

"We have had a steady run of visitors, many from afar. Studying the ıitors' book shows that an increasing number from Grants and Alququerque ɔıe in from the east. Brigadier General Wood visited El Morro with some ? his officers and friends.

"Another visitor who came was Mr. A. W. Barth who came along almost a ɜır to the day from his first visit in 1932. You will recall Mr. Barth as ııt graduate of the University of London who now lives in San Diego, where ɜ is a landscape gardener by vocation. Mr. Barth is the author of "New ɔɔes on El Morro" in Art and Archaeology (Washington, D. C.) in the May-ııe number, 1933, in which he made many interesting observations. His ranslation of the last line of the Governor Silva Nieto inscription as, Vell May to Zuni proceed and the Faith thither Carry" seems to be a solution f a long standing doubtful line and it seems to me a correct solution.

"Mr. Barth hitch hikes his way and despite his age and deafness makes ine progress. His knowledge of Spanish history seems unending. At present ɛ is translating Castaneda's Narrative of the Coronado Expedition, 1540-1542. think we may expect some more illuminating articles about our Monument and ts historical treasures from Mr. Barth.

"After having lunch with Mrs. Vogt and myself I took him to El Morro here he at once delved into its mysteries.

"I am expecting a visit from Mr. C. A. Richey of the Landscape ıgineering staff, after which I will write you.

"Your last month's report was very interesting. I read with especial ıterest the Pipe Springs notes on old frontier history.

"With best regards all around."

HAN QUIVIRA NATIONAL MONUMENT, W. H. Smith, Custodian.

"Another month has passed and I find it time to send in my monthly re-ırt again. I have registered 361 visitors entering the monument in 78 cars, th two well-loaded trucks of picnickers. This shows an increase of 174 sitors, nearly 50 percent, and 32 more vehicles over the same month last ar. Apparently financial conditions are on the mend.

"Weather conditions have been fine for travel this month with scarcely y rain and but few cloudy days. The days are staying warmer this fall than customary for this country. Nights are beginning to get cool. Only last ek we had the first ice I have seen this fall, which is 20 or 30 days later an usual. Generally at this date in this altitude we have had several eezes and occasionally a snow or two.

"In the afternoon of October 14 quite a gale came up and blew our flag le down, breaking it off near the ground and also in another place near

the center of the pole. This is going to require a new pole before we can float the Stars and Stripes again.

"As the grass and other vegetation of the monument are drying up, there will be some danger of fire. I will spend my spare time in the next few days erecting some fire warnings, which may caution our tourists to be more careful with fire."

MONTEZUMA CASTLE NATIONAL MONUMENT, Martin L. Jackson, Custodian.

"For the month of October we have had a total of 991 visitors to Montezuma Castle, with 267 registrants in the building. These came from 18 states and Washington, D. C. Weather has been very good for the past three weeks, and consequently the roads are pretty fair.

"The Old Settlers' Picnic was held here on October 15. They totalled 320, and parked in 77 cars, which we handled in the new parking area. Only a small percentage of the old-timers climbed to the Castle, as most of them had been there many times. In accordance with policy I am not encouraging these large reunions and picnic affairs on the grounds. I believe the Old Settlers will not convene here again, as they disliked not being able to drive their cars all over the picnic grounds.

"We look for a much busier winter season this year than usual, for we will have three large C.C.C. camps in the valley, located at the mouth of Oak Creek, and the Clear Creek ranger station, and at the Beaver Creek ranger station, of which at least one will be a permanent camp. As the Castle is the nearest place of public interest, we expect these boys to visit us on Sundays and holidays. Also, we hear that the several guest ranches in the vicinity have reservations for all available quarters this winter.

"The Smoki people and the Chamber of Commerce of Prescott are working conjointly in the interests of the Smoki museum there, and have some young archaeologists working in the field gathering material. They accosted officials of the United Verde Copper Company for permission to excavate a large ruin on company owned property. The company has the Castle interests at heart, for they specified if any digging was done the Castle museum should receive firsts on any artifacts found.

"If the Verde dam goes in, as we have high promise it will, the high water mark will cover some exceedingly interesting ruins and one of the two finest groups of prehistoric cavate lodges in the United States. It seems a shame that such fertile ruins should be covered forever from the eyes of science when our museum in the future could so well harbor artifacts from those places."

NATURAL BRIDGES NATIONAL MONUMENT, Zeke Johnson, Custodian.

"Seems like the months roll by pretty fast these days. Fall is gone and winter will soon be here. People are still going out to the Monument -

rly every day a car.

"I have bought 100 pounds of sweet clover seed to sow in the canyons out the Monument. I believe it will thrive and help things out a lot. I am ing out tomorrow to sow it and cache all my outfit for the winter, and then out west and get me a few red fox pelts to sell. I have orders for 6 or 8, I can get them very easily. This has been the most perfect fall I ever ember in this country. The canyons are still full of beautiful flowers.

"I hate to leave here this beautiful time of the year, but I will be pared to come back early in the spring.

"I forgot to tell you that I succeeded in getting Floyd Dalton out to oline Bridge and taking his name off. It is all OK now and I am very glad."

AJO NATIONAL MONUMENT, John Wetherill, Custodian.

"We have had quite a summer. To begin with, we had Ansel Hall's Monument ley and Rainbow Bridge exploring expedition here to visit our ruins and all other points of interest over the larger part of the section between enta and the San Juan River and from Chin Lee to Lee's Ferry. Then we our superintendent and his son with Miss Story from the Washington office, Mrs. White Mountain Smith's sister from the Petrified Forest National ument. Then we had a fall of rock from the roof of Kit Sil cave of about tons that carried down the part of one room, but did no other apparent age. In August Dean Cummings walked from the Marsh Pass to Betatakin with eighteen students. They slept at the ruin and one of the boys, thinking was a cliff dweller, went in one of the rooms to sleep. In the night he ught the enemy was after him and he jumped out of the door wrapped in his nket. He landed in one of the lower rooms and they carried him the eight es back to the pass on a stretcher. He was in the hospital for two days, as the nurses made him put on his clothes and got out, he drove his car to Gallup with the rest of the party.

"I don't know when you will see this letter. It has been raining for re days and the roads are almost impassable. The bridges are all gone. trails in the Tsagie are badly washed out.

"Marshall Finnan passed through Kayenta a few days ago. He was going fast that he couldn't stop his car, so I did not get a chance to see him. left word somewhere along the road that he had to be at the Grand Canyon noon or he would have stopped. The Shanto outfit are building a trail m the head of Betatakin Canyon. We need a ranger on the job as soon as can get one. You might make me ranger until you can send one up;as it I cannot spend all my time up there without a salary.

"Hoping you have a full season, with best wishes, I am . . . "

PIPE SPRING NATIONAL MONUMENT, Leonard Heaton, Acting Custodian.

"I don't know just where to begin on this report for October, as there are several items of interest that have occurred that need to be recorded in this monthly letter.

"First I might give an account of the travel and the new way I am endeavoring to follow. As you mentioned in the September report that there would be a different system of counting for the future, I have been trying to work out something appropriate for this monument that will answer the requirements and give what information you might want.

"To give you an idea of what I am working on I will try and outline what I have done. First I have counted all people that have passed or come to the monument, whether once or more times per day, and whether they are local people or not. Then of this number I have another count of those that stop to see the fort and are shown through either by myself or H. C. W. P. Mrs. Heaton. Then we have a lot of night travel which I only guess as to the number of passengers in the cars. Using this system for the past month I have a total of 694. Of this number I have contacted and shown through the place 67; 90 is the estimate of the night travel.

"In the past I have not kept track of the travel that comes by on business or don't seem to have any special interest in the place, as some of thelocal people, but just those who I consider interested in knowing of the old fort and its history. For example of a days travel I will give you October 23. Seven men on horses in the morning and back at night; count 14; 2 men with teams; count 16; mail driver and 1 passenger; count 18; 3 in car from west to Kanab and return; count 24; 2 in car from west; count 26; 4 in car from east; count 30; 6 from east and return; count 36;count for the day, 36. I do not keep this kind of record, but that is the way my travel is by this monument. I am trying to get some form worked out where I can keep a better record of the travel and classify it.

"Now for a few lines regarding the visit of Tom Vint and party. On the 27th of September Mrs. Heaton had been suffering with a tooth ache, so I started to the dentist with her about 2 o'clock and had only gone about 4 miles when I met a Zion Park car. I stopped to see who was in it and to my surprise I found Mr. Tom Vint, Harry Langley, Superintendent Patraw, and Mr. Hommon. I came back with the Park Officials and sent Mrs. Heaton on to town.

"On arriving here I showed them through the fort and gave them about the same line of talk I give all tourists. Of course there were interruptions, as we came upon some problem that we discussed on the spot. Then for an hour and a half we went over the grounds and the drawing Harry had made of the place from his earlier visits, making corrections and suggestions. Also discussed the water question and how the water was being used, how much the Park Service would need, what the Indians and cattlemen needed, also the past history of the use of the waters and what rights were given over to the government.

"The opinion expressed by these men was that the one-third rights of the cattlemen be recognized, the park taking what water they needed for residence, rest rooms, camp ground taps, irrigation of meadow and trees in the camp grounds and possibly a garden for the custodian, Indians getting what water was left.

"Development plans call for a change in the road to go from the southeast corner of the ponds east, south of the woman's rest room to the east boundary of the monument. Between the new road and the large clump of Alanths trees will be the rest rooms with flush toilets. East of the fort is the camp ground to be planted with trees this fall. A barrier is to be placed so that cars cannot get up to any of the buildings or between the ponds and fort. The plans also call for moving down to the road to the corner of the west pond the water where people can fill their barrels and water cans; moving the store to some other site if travel demands a store. South of the new road will be the residence and garage. The two ponds will be left as they are in the meadow; and I will move my sheds that are by the meadow.

"The Indian Service has had two men working at enlarging the pond that was used by the two young Indians this summer. The pond will be, when finished, 130 feet long, 90 feet wide, and 6 feet deep.

"The past week I have been getting the water out on the camp ground and preparing it for the planting of the trees this fall and doing a bit of cleaning up of the dead weeds. I regret to report that I have cut out half of the big elm tree that leans against the house. Either it or the house had to be moved and, as Tom Vint said, "it is easier to move the tree and trees can grow. The Fort; well it would be quite a job." You know that something had to be done about it as the wall of the fort was being pushed in by the tree.

"In all the years that this old fort has stood and had all kinds of visitors, this fall is the first time since it began that the fall cattle roundup has not camped here for the last three or four days work in getting the steers off to market. This year the cowboys had to go to other parts of the range to find feed and pasture for their cattle. Of the usual two or three thousand head of cattle handled here each fall only a hundred or so saw this place and they were cattle that are pastured most of the time. I have been wondering if the corrals that stand in the southwest corner of the monument will soon be all that will be left to remind us of what was once a common sight here in the past.

"I am also hunting down any old relic that should be here in our museum, such as a telegraph instrument of 1871 and the telegraph signs that were here. I just learned that one was at a dry farm in Short Creek. I also want to get some couches and beds, guns, and the spools that were used to wind thread on as it came off the spinning wheels. I added an old chair this month, and a pellet loader.

"We had been bothered for the past two or three weeks by a pole cat. Don't know as to its being the one that was here last fall or not, but it came almost every night, getting into our butter and fruit. Then last night he met his death by the only real enemy that he has, the great horned owl. I found him this morning at the foot of the flag pole half eaten up. I took his remains and gave them a burial some distance from the house.

"I turned the snakes loose the fore part of the month and now I am forever having people ask what I did with them and why I didn't keep them so that they could see them.

"Our frost has held off so far this fall and the trees are just beginning to drop their leaves, which means work for the custodian keeping the leaves out of the house, spring, and ponds. That's what a custodian is for - work, and like it no matter what kind it may be.

"Well this is a lengthy report, but as I said at the beginning, there were several items of interest to report and maybe I am taking a lot of your valuable time in your reading this report, so if you don't like it, chuck it in the waste basket and forget it."

. . . . . .

Any time we put we put an interesting report in the waste basket!

. . . . . .

TUMACACORI NATIONAL MONUMENT, Tubac, Arizona

"Visitors for the month of October - 614.

"The past few days we have been getting quite a number of winter visitors from Tucson, and the Federation of Women's clubs held at Nogales also brought quite a number of visitors.

"Owing to the death of Edgar Rogers, Custodian at Bandelier, Mr. Evenstad has been transferred to Bandelier. Mr. Evenstad was by far the best man we have ever had at Tumacacori and we very much regret to see him go.

"The government has approved the construction of a new Federal building at Nogales and also money for the flood control at that place. Nearly $500,000 will be spent on these two projects and it is quite astonishing how this section of the country has already begun to boom. It is going to increase the number of visitors at this monument considerably.

"I made a short trip into the Cochise Stronghold country and almost every gulch and creek bed is being panned for gold. I picked up about fifty arrow points, but nearly all had been broken due to the stoney condition of the hillside.

"Says Phoebe is very common here on the monument and during cold weather ıy go into the garage at night where they are prisoners until we open the ›rs in the morning. Last year they did not seek shelter until late in ›vember, but this year they came in the 21st of October which is a sign of ›der weather I think.

"Mr. Langley of the San Francisco office, and Mr. Tillotson of the ·nd Canyon National Park, also Mr. Pinkley and Chief Clerk Miller were ıong our visitors for October."

I.TE SANDS NATIONAL MONUMENT, Tom Charles, Custodian.

"At the suggestion of Leonard Heaton that our monthly travel count is ı some way connected with hoped for funds, I am putting my measly, part-time ›int at the head of the column. On Sunday, October 15, we left Albuquerque t about 8 A. M., visited the Elephant Butte Dam, ate lunch in Hot Springs, ›ent an hour with a new grand child and the happy mother (our daughter) at ıs Cruces, and then drove, rather leisurely over the White Sands road 72 i.es, between Las Cruces and Alamogordo. We drove the 72 miles in 100 iıutes and passed 60 cars, 7 of which were stopped at the Great White Sands. ›o-thirds of the 60 cars had Texas licenses and we presume that practically lı of these were making the loop drive from El Paso to Alamogordo, picnicking t the White Sands, and returning home by way of Las Cruces.

"We did not count the cars which we met between Albuquerque and Las ıices, but it is safe to say that we met twice as many cars on the 72 miles f White Sands road as we met on the other 250 miles of the trip.

"Your 'Custodian of Sands' took a day's trip through the Lincoln National crest one day this month, guest of Ranger Lou Laney. Far up on the hills, ear the timber line, at the side of the road was a half bushel or so of pure hite sand, unquestionably a part of my charge. What would Tom Boles do if found one of his Carlsbad Cavern stalactites lying out along the side of he highway? But this was different - this is a story of pathos and love, of he old flivver with its last breath trying to make the top of the hill. Of he tired mother walking with an armfull of rocks, scotching the car. Then he finale; the crying child having to give up its cherished box of magic sand the imprint of the chubby fingers still showing in the pile of sand tells he story of the fond farewell.

"Even the cold policy of 'undisturbed' could not fail to melt before ıch a scene. Some line of reasoning must show that the Great White Sands is ifferent, for one of the outstanding values of this new monument is the leasure which Young America is to get in carrying it away. It is probably he only National Monument where the policy of 'Come and Take it With You' ıy safely be advocated. Tonight's mountain breeze will heal today's most ıagic scar. The factory at the old Black Lake, with its perpetual production, ill pile up more magic crystals tomorrow than all the children in New Mexico

can carry away tonight.

"Your guess that the water turns red in our lakes as a sort of signal to the cattle that there is too much alkali is all wrong. Old timers tell us that no cow ever lived on that water long enough to see the danger signal. Professor Botkin, of the Chemistry Department of the State College, reports that the red in the sample of water is not due to inorganic compounds. The Biology Department of the same school believes that the red is due to some strain of bacteria. If these college fellows cannot figure it out, we expect to turn it over to the Alamogordo Chamber of Commerce. There is little doubt but some one in that group will give unqualified information as to what the red lakes are all about, especially if they are as good on lakes as they are on weather.

"George Boundey, of the Tumacacori National Monument, acquired his first love of the southwest in the years that he spent at a cow camp near the White Sands. We are glad of it, for there may come a time when we will need a corroborating witness for some of these flash reports of ours."

WUPTAKI NATIONAL MONUMENT

"The following story of work done this summer at Wupatki National Monument by the Museum of Northern Arizona makes a most interesting addition to this report.

WUPATKI NATIONAL MONUMENT
By
Lyndon L. Hargrave, Field Director
Museum of Northern Arizona.

From April 1st to October 1st of this year the Museum of Northern Arizona maintained an archaeological camp at the pueblo of Wupatki. As the work was in my charge, I suppose I might consider myself a self-appointed Custodian. Since the lamented death of Mr. J. C. Clarke last summer, this monument has been without a Custodian. Members of the Museum staff have at various times made official trips to, or have been in the neighborhood of, the pueblo and have been able to keep a weather eye upon the place.

A few words about the Monument, and the pueblo of Wupatki in particular, will not be amiss at this time for they are scarcely known even in official circles. Wupatki may be considered one of those Monuments which has been set aside because of the foresight of a group of interested citizens anxious to preserve for posterity a unique and scenic spot of general and scientific interest. Within the boundary are innumerable ruins of prehistoric peoples whom we know occupied that section between the tenth and thirteenth centuries A. D. Ruined habitations from the pithouse stage to that of large communities of stone buildings are to be seen there. For persons of general interest only

ıse larger pueblos have more appeal because of their conspicuousness and so because they harmonize so perfectly with the surrounding country.

Wuptaki is not recently discovered, for it was visited as early as 1851 ıl was reported upon in 1853 by Lt. Sitgreaves. Its date of discovery thus ıedates by more than twenty years the discovery of the famous Cliff Palace ıl many another of the larger pueblos. Wupatki is, therefore, one of the arliest of the pueblos discovered by officials of the United States Government. t the time it was seen by Sitgreaves, many rooms were in perfect condition ith large beams supporting a roof of grass, brush, or reeds, and earth. ntil recent years a part of one of these roofs remained. Its remarkable tate of preservation is due to the extreme dryness of the locality and because he walls are constructed of flat sandstone slabs, which conditions have nsured the durability of the pueblo. The most impressive point of con-ideration, however, is that the pueblo is entirely in the open and is thus xposed to the elements at all times.

The natural setting of this pueblo is a thing of beauty. At an alti-ude of 5000 feet, sunshine and warmth are assured the greater part of the ear and the locality is a favored spot for picnicking when the nearby San rancisco Mountains are covered with snow. The southern boundary of the site s a high black lava escarpment at the foot of which are large dunes of olcanic cinders. The foregound is of red Moencopi sandstone which extends o the Little Colorado river, about six miles away. East and north the riegated colors of the Painted Desert contrast strongly with the somber ıes of the volcanic background. Probably in no monument of the southwest the beauty of the Painted Desert and the appeal of Man's past so strongly nked together and emphasized as it is at Wupatki.

Repeated observations made by the Museum upon the Monument these past o years have revealed that the situation there was not too encouraging. fact, the Monument lay open to attack from anyone. Its distance from agstaff, the nearest settlement, is more than forty miles. Few people, her than those who know the country, ever visit these ruins. The iso-tion of the locality and the fact that within the past two years a fair ad, graded part of the way, has made it possible for pot-hunters to easily ach the Monument where depredations could be made without great fear of ing discovered at the time. In fact, so many changes for the worst were ted that the Museum secured a permit to conduct archaeological investigations the pueblo of Wupatki. Through this work it was hoped to save for science e cultural material remaining there and at the same time to devote some me to the preservation of the more dilapidated part of the pueblo.

At times this season as many as eight men composed the personnel of the pedition and the work consisted of mapping, excavating, and restoring. A ntour map of the quarter section containing the pueblo of Wupatki was made, ntours being run at ten foot intervals. On this map was located every dication of a prehistoric habitation, all arroyos (thus determining the ainage immediately affecting the community), and residual junipers. A de-iled plan of the pueblo was also made and data were tabulated for a model storation of the pueblo should it ever be completely excavated.

Before excavation could be undertaken, however, the talus accumulation had to be removed from the southeastern block of rooms where the major work was to be done. Also a trail had to be built along the western side of this block where two rooms had been selected for restoration. Nineteen rooms were completely cleared out, some to a depth of twenty feet through three rooms deep. These superimposed rooms were back-filled to the floor level of the remaining upper room. One room (R 49) was found to be a rectangular kiva. Excavation was also made of a large depression on the eastern slope, which work revealed a large circular area, approximately fifty-three feet in diameter. This area once had a high enclosing wall of masonry except on the northeast where there was an entrance. The absence of kiva features, other than a banquette, suggests that this "amphitheater" may possibly have been built as a plaza since no evidence of a plaza was found. This structure is by far the most imposing architectural feature of the pueblo.

Weakened walls were partially restored and three rooms and the "amphitheater" were reconstructed. Roofs of the rooms were copied from types found while excavating. Materials used, with the exception of the roof beams, were gotten at the site.

In addition to the actual archaeological investigations much information was gathered from other sources. The Museum had maintained a rain guage at the site during 1932 and so during the summer of 1933 meteorological date were increased by maintaining a weather bureau. At intervals during the summer Dr. Colton and Miss Bartlett continued their study of the geology of the locality, a project started some years ago. Data on the wild life of the vicinity was gathered both by Mr. Charles Quaintance, Associate in Mammalogy, and by various members of the summer archaeological expedition. Collections of the mammals, birds, and reptiles were made. Near the Citadel pueblo the Museum recovered pleistocene paleontological material from a solution crack in the limestone.

Travel conditions were improved by signing the road, by marking the Monument, and signs warning against unauthorized excavating were placed at strategic points in the Monument.

A register was kept during the summer months and about 300 visitors were recorded, the most important party being the International Geological Congress of more than forty members from various parts of the world. A lecture upon the pueblo was given by a member of the Museum staff. Though this number of summer visitors is small when compared with that of most Monuments, few tourists hear about, or learn of, the location of this Monument. As a result of the summer's work, however, the attendance this coming year should be much higher.

The investigations of the Museum of Northern Arizona on the Wupatki National Monument are not completed and it is hoped and planned to continue these investigations another year. The possibilities of this Monument are so great and varied that it rightly should receive more consideration both locally and nationally.

IN GENERAL.

The weather through the district seems to be ideal for vel. The roads have been in good condition except as to side roads just er rains. The road from U.S. 66 past the Chaco Canyon National Monument Aztec Ruins National Monument is in better condition than I ever saw it.

It seems to me that business in general through the district is on upward trend. Tourist traffic, however, has not yet shown much upturn; ould be natural for it to lag behind general business conditions.

The Service men in the Southwest are all busy and have work laid t ahead to keep them busy for the winter months.

We are now badly short handed and have no funds to hire help in illing visitors on busy days. Ed. Rogers' death and the separation of Hugh rry from the Service have automatically impounded those salaries for the st of the fiscal year. It isn't fair, in these times of thirty and forty ur working weeks, to ask George Boundey and Martin Jackson to work three ired and sixty-five days a year, yet that is what they are up against unless can get a release on those impounded funds and hire help when and as needed.

In our headquarters, the paper work has increased about one third the last six months. If it doesn't level off pretty soon we will be rk. Our Chief Clerk has had about three days off in the last two months our office hours are from eight in the morniing to about six in the ning. We don't get the seasonal let-up which occurs in some places ther. Our winter is as heavy as our summer and we have a high peak of k over every month-end. All this isn't a complaint; I'm just telling . I know you folks in Washington are in the same fix and I just want you know why we can understand and sympathize with you.

Cordially,

Frank Pinkley

Frank Pinkley,
Superintendent.

SUPPLEMENT
OCTOBER REPORT
SOUTHWESTERN MONUMENTS

November 1, 1933

Dealing with people, "shop talk" and other subjects of interest.

"Threatening Rock" standing behind Pueblo Bonito has been the subject of considerable study by Park Service Engineers and by students of Archeology. We take a great deal of pleasure in presenting here a most interesting report entitled "A Study of Primitive Indian Engineering Methods Pertaining to Threatening Rock" by John Yak Keur of the Biology Department, Long Island University, Brooklyn, New York. During the Summer of 1933 Professor Keur pursued studies on Threatening Rock while Mrs. Keur of the teaching staff in Anthropology of the same university made studies of the cliff cavities or cliff cysts of Chaco Canyon. Mrs. Keur's catalogue of materials from the cavities and her descriptions can be found in the Supplement of the September Report dealing with these excavations.

CHACO CANYON NATIONAL MONUMENT

"

THREATENING ROCK

Introduction.

"Pueblo Bonito in Chaco Canyon was constructed by its ancient builders close to the North wall of the canyon. This North wall rises almost vertically to a height of 100 feet directly behind the present ruins. The cliff shows the effects of erosion, its surface is streaked and weatherbeaten, full of cavaties which give the face of the rock a lace like appearance in places. The base of the cliff shows erosion to a much greater extent, here and there wind and sand have caused a deep undercutting resulting in the formation of caves. An enormous block of sandstone has become detached from the cliff and threatens to fall on the West part of the Bonito ruin. This report deals with the attempts which the ancient Bonitians have made to prevent or delay the falling of this huge mass. The inhabitants of the pueblo must have been aware of the damage that could be done by such a mass of rock when and if it fell, for rock falls and slides are of frequent occurrence in the canyon. It has been suggested (E.L. Hewett, "Ancient Life in the American Southwest" page 303) that this "threatening" rock might have been a cause of the abandonment of the Pueblo by its inhabitants. The Navajo refer to the rock as Sabaohnnei or Ysabeadnci meaning "Place where the rock is braced up".

The relation of the rock and the Pueblo.

"During July and August 1933 the writer investigated the attempts which the inhabitants of Pueblo Bonito had made to prevent Threatening Rock from falling. The West corner of this rock stands 120 feet from the North wall of the Pueblo. The North wall curves away from the rock in such a manner that the further part of the curve is 190 feet removed from the East corner of the rock. Threatening Rock is 100 feet high, 140 feet long and approximately 34 feet wide. (At midheight) If this rock had fallen as a unit without splitting - which was quite unlikely * its West corner would have jarred and probably crushed the back wall and rooms of Pueblo Bonito. If the rock had split while falling the resulting masses might have rolled right through the back wall which at present shows evidence of four stories. The damage of such an occurrence would have been considerable and it is not surprising that the Bonitians did what they could to prevent such a fall. Their handiwork, now uncovered, presents a marvellous and constructive example of the ancient engineering which they practiced.

The relation of the rock and the cliff.

"Threatening rock stands now entirely detached from the cliff. It is slightly wedgeshaped, with its greatest width at midheight. The vertical split between the rock and the canyon wall is from 10-12 feet wide at the top and from 3-4 feet at the base. This difference in width at top and base is not entirely due to leaning forward of the rock but rather to the weathering and loosening of smaller sandstone blocks from the surface of the cleft. The space between rock and canyon wall is partly filled with these loosened rocks, which may have a great effect in hastening the fall of Threatening Rock. Water collects between these loose stones and during freezing weather considerable expansion pressure may be exerted upon the rock.

"In addition to a slight forward leaning the rock also shows a settling in the alluvial mass of the canyon floor. This can be judged by making a comparison of the relative position of the same stratum in the rock and the canyon wall. At some points the difference in levels is 8 inches. The rock shows not only a leaning away from the cliff but its upper part (3/4 of its height) is beginning to split away horizontally from its lower part. Thus a wedge shaped horizontal crack cam be seen at the back of the rock, indicating an additional tilting of the rock on its own base.

The fron t surface and base of the rock.

"The front part of the rock shows a fairly uniform -though

weathered - surface. One large vertical crack, 40 feet from its East end is visible, extending from top to base. Several other smaller cracks are present in the front surface. The base of the rock is far from uniform, showing a deeply extending erosion in spots. This undercutting extends in one place from 14-16 feet, which is almost to the gravity axis, the width of the rock at midheight being 34 feet. About 1/4 of the area of the base of the rock lies in front of the gravity axis. As a result of the erosion at the base we find several caves, especially at the West base of the rock. If this undercut had been uniform along the entire base the rock would have undoubtedly fallen long ago. In its present condition the rock may remain standing for centuries provided that further erosion can be prevented and barring earthquakes.

"The overhang at the base of the rock is greatest at the West end where over a length of 60 feet the undercut varies from 4 to 15 feet. The overhang of the remaining 110 feet is much less, ranging from 3 to 6 feet.

The embankment in front of the rock.

"The ancient Bonitians constructed a large embankment in front of Threatening Rock which at the start of this survey appeared as a much eroded talus. The flat top or terrace of this embankment extended to the base of the rock for a distance of 15 to 20 feet depending on the erosion. From this more or less horizontal terrace rocks and sand had formed a slope extending 20 to 30 feet further to the front. This slope had been previously dug into at right angles to the embankment exposing at two points parts of a rock veneer, 5 and 8 feet long respectively. On the flat top of the embankment remnants of a wall parallel to the face of the rock could be seen, constructed at the place where the overhang was most pronounced. At the West end of the rock 60 feet of this wall was standing while at the East end a 26 foot stretch of wall was visible. At present the height of these walls does not quite reach up to the overhang, the highest wall fragment now standing comes to within 2 feet of it. It is probable that originally this wall was constructed clear up to the overhanging parts of the rock.

Determination of the construction of the embankment.

"The first part of the work consisted of the exposure of the remaining stone veneer which at one time covered the entire front of the embankment. It was found that the East corner of this veneer extended originally to a point 40 feet beyond the East corner of the rock. This point was marked by a huge 20 foot long

block of rock which apparently had been used as a corner stone or starting point for the embankment. Next an attempt was made to locate the West corner of the veneer. At the West end of Threatening Rock a large pile of fallen rock is present, consisting of huge blocks of sandstone and much debris. At one time this mass of rock might have been in the same position in relation to the canyon wall as we now find Threatening Rock to be. This fallen pile was present in 1900 and probably referred to by N. C. Nelson ("Notes on Pueblo Bonito" Anthr. Papers Amer. Mus. of Nat. History, vol. 27, 1920 page 389) who raised the question if this fall had occurred during the occuparion of the Pueblo. Earlier visitors and investigators give little information about the presence of this particular rockfall. W. H. Jackson states (Report on the ancient ruins examined in 1875 and 1877", 10th annual report of the U. S. Geol. and Geogr. survey, Washington 1878 page 442) that: "The Pueblo was built within about 20 yards of the foot of the bluff, but a talus of broken rock occupies all of this space, excepting a narrow passage next to the Northern wall, quite clear if the mass of fallen rock referred to was present in 1875 or not.

"The writer succeeded in following the veneer Westward to a point 8 feet underneath this mass of rock, indicating that the embankment and its veneer were built before the mass fell. The weight and size of the individual stones as well as the complete absence of laborers made further excavation# impossible. The entire length of veneer exposed was 185 feet.

"As the next phase of the work an attempt was made to locate the veneer on the other (West) side of the fallen mass of rock. There a trench 5 feet wide was made at right angles to the cliff wall. If the veneer continued underneath the rockfall in a straight line no evidence was found of it appearing again at the West end. The trench did show evidence however of walls at right angles to the cliff, badly crushed by fallen blocks of stone, some of which were too large to be removed and interfered with a thorough excavation. These walls might indicate the presence of rooms at the base of the cliff, a possible continuation of a small previously excavated dwelling consisting so far of one small kiva and a room, located a few yards further West against the cliff wall. If laborers had been available further excavations might have shown better results, the writer had to abandon further digging due to the cumbersome debris. As yet then the West corner and extent of the embankment remain covered. At some future date this may be determined by moving the debris or by sinking test shafts straight downward from the center of the fallen rock mass.

D.

"The 185 feet length of veneer uncovered is at present in a precarious condition due to of erosion. The veneer was exposed to a height of 2 to 5 feet. At intervals of 50 feet shafts were dug to determine the base foundation of the veneer. The distance from this base to the flat terrace on top of the embankment varied from 16 to 19 feet, indicating the original height to which this embankment was constructed.

"The material removed from the foot of the veneer consisted of blown and washed sand, stones fallen from above and near the base of the veneer several piles of mixed clay mortar. The veneer itself is in a fair state of preservation, it appears banded in construction, regular rows of larger stones alternating with from 1 to 4 rows of much smaller ones. No doorways, entrances or stairways were found.

"Behind this veneer and extending to the top of the terrace a mass of irregular stone set in adobe was uncovered, extending the entire length of the embankment. These large and mostly flat stones had been placed horizontally and covered layer upon layer with adobe. However, this mass of stones did not fill the entire space between the veneer and the base of the rock. The width of this stone pier ranges from 14 feet at the West end to 18 feet at the East end, while the terrace is from 28 to 34 feet wide (measured to the base of Threatening Rock.) In order to determine the character of the fill between the stone pier and the rock-base several trenches were made at right angles to the rock. The fill material consisted largely of a top part of blown in sand mixed with stones fallen from the wall above, while below the terrace level the fill was found to be composed almost entirely of a mixture of sand and clay, free from stones. The above mentioned trenches were constructed to the base of the walls erected ~~#####~~ underneath the overhang of the rock. However, these walls are not present along the entire front of the rock, 60 feet from the East corner, extending to a distance of 40 feet west no evidence of such walls could be seen on the surface. Through the center of this space another trench 4 feet wide was made at right angles to the rock. This trench did not show the presence of a wall connecting the East and West walls which had been erected under the overhang. The following evidence relating to the construction of the embankment was obtained from this particular trench. The width of the stone pier was first determined, 16 feet to the front veneer. The distance from this stone pier to the base of the rock was found to be 16 feet also. After the top part of the trench consisting of drifted sand and debris had been removed it was found that in filling in the space between stone pier and rock clay and sand had been used, clay near the rock and pure sand near the stone pier. At the ~~base~~

E.

top of the trench the sand fill was found to be 10 feet wide and between this fill and the rock a 6 foot wide area of clay was uncovered. These measurements are taken at right angles to the rock. On excavating deeper the sand area became more narrow, the clay area correspondingly wider. At a depthof 7 feet the sand occupied only 3 feet of the 16 foot trench, the remaining 13 feet were found to be clay. This clay was very closely packed and very hard. It showed evidence of having been poured in layers, slightly tilting away from the base of the rock. The stratification could be clearly discerned. The area occupied by the pure sand between the clay and the stone pier was more or less wedge shaped. In making an interpretation of this unusual construction the following suppositions can be made. If--at this point--the entire space between the stone pier and the base of the rock had been filled by hard packed clay any forward settling of the rock would have caused a tremendous pressure on the embankment, causing it to be pushed forward which in turn would have resulted in a leaning forward and perhaps falling of the front veneer. However, with a sand wedge present, any pushing forward of the clay buttress would have resulted in an upward pushing of this sand, preventing in this manner the weakening and cracking of the front stone pier. In other words the sand would have acted as a sort of pressure absorber.

The part of the clay buttress nearest the rock to a width of 2 feet was excavated carefully with a trowel to study the rock surface. Gradually in this manner the rock base was uncovered. When approximately 12 square feet had been cleared of the rock surface, faint cracking sounds were detected. Close inspection showed the appearance of fresh cracks in the rock. These cracks were carefully plotted from day to day. Eight separate ones were thus located, varying in length from 4 to 13 inches. It was thought at first that these cracks might be a result of the frying of the rock on exposure to the air. However the clay was very dry, due to a slight overhang of the rock no rainwater had fallen directly on it. Also in the lower 2/3 of the trench the rock showed no evidence of cracks whatever. The sandstone layer in which the cracks did form appeared weaker than the underlying layers. The cracks must have been the result of the tremendous pressure from above. The question arises: "Is the rock still settling?" The Threatening Rock stands at present in somewhat the same position as a brick on a piece of soft material suchas rubber, with one half of the rock on it, the other half off. (J. B. Hamilton, "Survey of Threatening Rock", Report of the engineer, October 1932.) As a result of such a position greatest crushing weight occurs under the center of the load, because the overhang tends to tip the rock at the back. Such tilting can at present be seen at the back of the rock near its East end where horizontal wedge shaped cracks have appeared. These cracks are from 2--3 inches wide at the back and extend into the rock for a distance of nearly 15 feet.

The construction of walls under the overhang.

From the terrace level the Bonitians constructed a wall parallel to the rock and apparently up to the overhanging part of Threatening Rock. This wall is not continuous along the entire length of the rock, it is found only underneath the greates overhang of the rock. There are two such walls, one at the west end of the rock and one near the east end, with 40 feet of open terrace in between. The East wall starts at a point 22 feet West of the East corner of the rock. This wall is 26 feet long and from one to four feet high at present. The highest fragment now standing is ten feet above the terrace level and comes to within six feet of the overhang, which at this point is ten feet. From this outer wall three smaller walls have been constructed dividing the space into rooms or compartments. In this manner two rooms have been formed. The East corner of this group of rooms forms a large buttress-like mass of stones, eight feet wide and built ten feet to the base of the rock. The overhang was used apparently for the ceiling of the rooms, remains of plaster being still visible upon it. The wall parallel to the rock is very solid, it is $4\frac{1}{2}$ feet wide at its base which is three feet below the terrace level and three feet wide on the top of the highest piece yet standing. Between this small group of rooms at the East end and a larger group at the West end of the rock is a space of 40 feet which shows no evidence of a connecting wall even at a depth of seven feet. The rock in this particular area shows the least overhang, less than three feet. The wall at the West end is visible for a length of 60 feet, at which point it seems to have been crushed by the rock-fall immediately to the West of Threatening Rock. It could not be determined at this time if and how far this wall continues underneath the fallen mass. With the aid of trenches the base of the wall was located three feet below the terrace level. At certain points the base of the wall was set in pure sand, at other points the entire base had been constructed in a block of clay, protruding one foot from the base of the wall and extending downward three feet. The base of the West wall was found to be $5\frac{1}{2}$ feet wide while the top of the present highest fragment is three feet wide and comes to within four feet of the overhang. The height of the wall at its highest point is fourteen feet from its foundation. This wall as well as the East wall are constructed out of rather large and often irregular pieces of sandstone, separated by smaller stones. The masonry is not banded as is the front veneer. The part of the wall facing Threatening Rock is nearly perpendicular, the outside surface is slanting, thus forming a wedge shaped buttress. If the two upper parts of this wall are continued upward it is found that the overhang must have rested at one time on a stone wall $2\frac{1}{2}$ feet thick. This, however, did not constitute the entire support given the overhang. Where the wall has fallen away several circular pits are seen in the interior masbnry, containing a log each. These vertical logs, of which nine can still be seen, are approximately eight to ten inches in diameter. They have been removed, cut or burned in the past so that at present only those parts surrounded by masonry are still standing. Originally these logs might have extended to the edge of the overhang. Only one log is at present found in a similar condition. Their function must have been to shore up the overhang.

The width of the overhang varies from nine to four feet and the ce between the wall and the rock is divided by cross walls (from 16 to inches wide) into 9 (or 10) rooms or compartments. The largest com- tment measures nine by five feet, the smallest, three by four feet. e floors of these rooms are constructed of adobe, others of stone. to lack of time no thorough investigation could be made of these rooms. y showed evidence of having been used for sheep corrals or shelters quite ently. The cross walls were of very poor construction and might have n built by Navajos. No evidence of doorways, ventilating holes, fire- ces, etc. and very few potsherds were found in these rooms. What was function of these rooms? That question must at present remain un- wered. What was the function of the wall? It seems inconceivable that Bonitians would go through all the trouble of putting up an embankment buttress-like wall for the sake of obtaining a dozen small, inaccessible ms under the rock overhang. The way in which the wall was constructed, . solid, buttress-like, reinforced with vertical logs, underneath an over- g, etc. point to the conclusion that its main function must have been for port. The wall by itself could not support the entire weight of the ff, the embankment would prevent weathering and enlargement of the under- of the rock. This embankment would have to be twice as high as it is present in order to reach the top of the overhang. It seems logical to ume that the same effect -- prevention of erosion -- could be obtained by lding a wall at the points of greatest erosion, shutting them off from influence of rain, wind and sand. The embankment in addition formed a id buttress to prevent or retard a downward sinking of the rock. As a ondary function of the wall on the terrace we might assume that it was used additional support. Mr. N. M. Judd (Everyday life in Pueblo Bonito, t. 1925 vol. National Geographic Magazine) states on page 260: "They e Bonitians) even had the presumptuousness to erect a puny brace of sticks stones to hold back 100,000 tons of solid rock that threatened to topple n their dwellings." The evidence presented in this survey hopes to es- lish the conviction that after all, the efforts of the Bonitians were from "puny" but to them as magnificent as some of our present day engineerig ertakings are to us.

Mr. Judd gives 100,000 tons of weight to the Threatening Rock. In er to check this figure several samples of sandstone were taken and their ght and volume determined. From these figures the total weight of the k was computed, amounting to approximately 25,000 tons.

Can anything be done to insure the stability of such a weight? It ld be an expensive and difficult undertaking. The cheapest method would to remove the rock debris between the canyon wall and the rock. It is ikely that the entire block would fall as one unit, barring earth- kes. The East corner block might be the first piece to go, due to its ater leaning forward and the continuous vertical crack. When this corner ls it will do the least damage because it is furtherst removed from the blo wall.

It would be of interest to know if the Threatening Rock is moving m year to year. As no measurements or opinions were available it was de- ed to establish points on top of the rock and the cliff between which

measurements could be taken at intervals, in order to show any motion of the rock. To this purpose twelve holes were made, each filled with cement with a copper pin in the center of each. These twelve holes were located as follows: numbers 1. 2. 3. 4. and 5 on top of Threatening Rock spaced approximately 25 feet apart. Numbers 6, 8, 9, 10, and 11 in roughly corresponding positions on top of the mesa and numbers 7 and 12 further back on the mesa. The distances between these points were carefully measured and re-checked with a steel tape. The distances are tabulated as follows:

From point	1	to	point	6	:	16	feet	8	5/8	inches.
From point	1	to	point	7	:	39	"	10	1/2	inches.
" "	1	"	"	8	:	23	"	8	1/2	inches.
" "	2	"	"	6	:	25	"	10		"
" "	2	"	"	7	:	35	"	8	1/8	"
" "	2	"	"	8	:	9	"	5	3/8	"
" "	6	"	"	7	:	25	"	8		"
" "	7	"	"	8	:	26	"	7		"
" "	1	"	"	2	:	20	"	5		"
" "	1	"	"	12	:	64	"	11	1/2	"
" "	2	"	"	12	:	46	"		7/8	"
" "	6	"	"	12	:	62	"	2	1/4	"
" "	8	"	"	12	:	42	"	4	3/8	"
" "	3	"	"	9	:	15	"	9	7/8	"
" "	4	"	"	9	:	33	"	3	1/8	"
" "	5	"	"	9	:	68	"	8	1/4	"
" "	3	"	"	10	:	36	"	4	3/8	"
" "	4	"	"	10	:	18	"	9	3/8	"
" "	5	"	"	10	:	43	"	6	1/2	"
" "	4	"	"	11	:	55	"	6	3/4	"
" "	5	"	"	11	:	31	"		3/8	"
" "	1	"	"	2	:	20	"	5		"
" "	4	"	"	5	:	37	"	10	1/4	"

Recommendations for preservation and reconstruction.

1. The veneer in front of the embankment should be repaired to a height of five or six feet to prevent further deterioration. The top of this veneer should be protected against water seepage. It was thought at first that the same method might be applied here as the one used to cap the walls in Pueblo Bonito, i.e. with a layer of cement. On close inspection, however, this method seems far from satisfactory. Walls thus treated in Pueblo Bonito show many areas where water has seeped through in spite of the capping. The cement shows much cracking and water has penetrated through holes and cracks, causing the washing out of adobe, loosening of stones and streaking of walls. In treating the top of the veneer the following method might prove successful, viz. setting the entire top row of flat stones in cement. The cement should be applied thinly to replace as exactly as possible the removed adobe, giving the veneer a more natural appearance.

2. The stone embankment behind the veneer should also be repaired and gutters placed here and there to drain the water. The stones should be

placed wherever possible and the ones present set more firmly in cement.

. The terrace should be cleared of debris, levelled off and a drain nstructed through the entire length in order to remove the water to the st end, preventing it from flowing over the veneer.

. The walls underneath the overhang should also be repaired as much possible, using the stones that have fallen from the walls on the terrace in the space between the walls and the rock. The top of the wall should treated in the same manner as the top of the front veneer.

. The area underneath the overhang should be cleared of the blown-in nd, exposing the floor levels of the rooms. The cross walls should also be epaired.

. Finally, what can be done about the Threatening Rock? The evitable question is: when will it fall? This, of course, cannot be swered directly. The Rock may remain standing for a thousand years, except in the case of an earthquake. It will be interesting to note if yearly asurements between the hubs placed on top will show any appreciable movement of the block, be it downwards, forward or sideways. If these shifts ould prove to be considerable, measures would have to be taken to prevent e block from falling and damaging the ruins by crushing or jarring. In nt case the rock would have to be anchored by strong cables to the rock of the canyon wall. If, however, the measurements should show hardly any vement, it would not be necessary to incur the great expense involved in e above procedure. At any rate it would be an excellent undertaking remove most of the fallen rocks between the rock and the canyon wall, or cover them with cement to prevent water seepage and the resulting expanion pressure during freezing weather. The writer urges that this primitive gineering should be repaired and preserved for the enlightenment of future isitors as soon as possible.

In conclusion the writer wishes to express his sincere thanks and preciation to Mr. Hurst R. Julian, Custodian of the Chaco Canyon National onument, without whose help, encouragement and suggestions this survey would ve been impossible. He is also greatly indebted to the members of the aff of the School of American Research, especially to Dr. Edgar L. Hewett, r. Paul Walter and Mr. Paul Reiter, for their criticisms of the work, ggestions and interpretations. Last, but not least, the efforts of Mrs. orothy L. Keur have been stimulating and helpful.

ist of artifacts found during excavations.

ards of pottery. (corrugated, indented, Chaco black on white.)
sandal of, woven yucca fibre.
veral corn cobs and corn kernels.
y small pieces of rope including one bound with feather shafts.
mall piece of woven material.
piece of leather-like material.
lat stone showing signs of a swastika design.
large squash stem.
veral pieces of cedar wood.

I want to take the opportunity here, Chief, to thank Dr. Keur for his excellent report which contains so much good meat to us. I intend to sic the Engineers on that job again with his report in their hand and see what conclusions they will come to on his recommendations. Then we will ask Mr. Julian to include an item in his Six Year Program to cover any necessary work. I think Dr. Keur plans to be back in the Canyon next season and I will be very glad to recommend a permit if he wishes to go on with his work.

I have asked Mrs. Dorothy L. Keur, who did the work in the U2 Cliff Cavity, which was reported in last month's Supplement, to give us a report from the 'human' as against the 'statistical' standpoint. This differentiation does not belittle the former report which was necessary and which gives the archaeological shark the condensed information of just what she found and how she found it; but the human side of these things has always interested me more and I am sure that is true with most of the readers of this report. I still have a vivid impression of the afternoon she and I sat on the floor of the office at Chaco and talked while she sorted the results of the week's dig and tabulated the dry facts about them.

THE EXCAVATION OF A CLIFF CAVITY.
Chaco Canyon, New Mexico.
By Dorothy L. Keur.

In walking along the base of the cliff marking the north side of Chaco Canyon, from that ancient apartment house now called Kin Kletso to the town beautiful, Pueblo Bonito, one is amazed by the many signs of former life and activity. Hardly a square yard of the face of the cliff which does not bear some evidence of the hand of man. There are rows of small vigas holes where once rested the cross poles supporting some roof; there are broad black bands extending up the face of the cliff wall, where once fires blazed and left the tell tale smoke. There are talus slopes made up of debris containing countless squared building stones and potsherds; sometimes part of a wall still stands. Here, then, man lived, close to the sheltering rock. Many lines and groves indicate that stone axes and other stone tools were kept well ground and sharpened. The petroglyphs are legion, some showing no mean skill in execution; all difficult in ~~of~~ ~~the~~ interpretation; but indicating a rich symbolism. There are many natural features of interest, also, as crevices, cavities, great blocks of sandstone sheared off from the main body of the cliff wall, assuming threatening or grotesque shapes.

A stone's throw east of Kin Kletso, at the top of the talus, and at the base of the cliff, occurs a natural cavity, lying almost parallel to the face of the cliff, formed by an out-jutting slab of rock. It is fully eight feet long.

Here was an excellent place for an ancient inhabitant of the Chaco to stow away some of his worldly goods. Alas for the foolish one with his 'barn' well stocked with supplies for his future. Time has passed; the ancient world of Chaco has been abandoned for centuries; he who cached his worldly goods here is no more. Packrats have long since discovered

is hiding place. But it is highly probable that no fellow human being
cbed within, until Mr. Hurst Julian's curiosity and keen sight led him to
. As his humble assistant, I enjoyed the privilege of a large part
the excavating.

By lying flat on one's stomach, inserting a hoe, and slowly dragging
t whatever material the hoe happened to catch, the inquisitive excavator
ought to light what had been the worldly goods of a past life. The work
s somewhat arduous, but never tedious, for this combination 'closet-and-
rtry' had been well stocked. Despite the fine dust, drift, and copious
ck rat manure, hardly a single hoeful came forth without some bit of dessicated
d, or fragment of artifact. In a country where now only cactus, sage,
chico abound, once agriculture of a high order must have flourished, for
this one cavity along, almost 2,000 corn cobs were found; a few corn
nels, 200 pieces of squash and gourd rind, a few red beans; several small
s of raw cotton, and one small cotton boll. Other plant products were
red away here too, such as pinon nuts, arrowreeds, yucca seeds, and
usands of stripped yucca leaves. All of these were no doubt gathered
human hands for some purpose never fulfilled.

Of artifacts, too, there were many. Braided and twisted cord
s found in abundance; somepieces as long as ten or twelve inches; much
it was knotted; some was bound with feathers. How many uses such cord may
ve had to an ancient inhabitant of Chaco, one can only surmise. Perhaps
e owner of this 'closet' liked to collect cord, even as some scrupulously
onomic souls today. Of course it is always possible, too, that a
eat deal of this material was carried to its hiding place through the agency
pack rats. A prosaic interpretation, indeed, but the enthusiastic
cavator must strive hard to keep sentimentality in check, in an attempt to
scientifically truthful.

Part of a fire stick was found, indicating the ancient way of
iking a light. There were two fragments of arrow shafts, both notched,
e bound with sinew, the other painted red; weapons which we have replaced
th rifles. Many fragments of basketry and minute pieces of cotton cloth
ve evidence of skill not surpassed by handiwork today. Such craftsman-
ip never failed to amaze the excavator, who has neither patience nor skill
produce anything comparable. There were also more than a dozen pieces
leather and leather thongs; and various potsherds, obviously belonging
different pots.

Most thrilling of all was the discovery of $1\frac{1}{2}$ pair of sandals.
rt as we could, the fourth sandal was not found. The complete pair was
ited of broad stripps of yucca leaves. The odd one was of very fine
cca fibre, beautifully woven, with a design on the under side. Centuries
c, feet protected by these sandals trod the very ground we were standing
; feet of fellow human beings who loved, hated, and feared, even as we today.

Another discovery brought us closest of all to the biological side
this past life. Among many bones of assorted varieties and sizes, belonging
stly to small rodents, there were two which were indubitably human. They
re portions of the parietal bones of the cranium. Here in our tremb-
rg fingers we held the small pieces of badly weathered bones, the only re-
ins of some mortal body, truly as frail as dust.

But the spirit of man lives on. In this day of marvels, we must
ill marvel at the daring of him who took fire and curbed its mighty force,

and turned it to his use. In this same cavity, so rich in indications of human life, evidence of fire was also found. The inner walls and ceiling were blackened with smoke. Sixteen inches below the mouth of the cavity was a layer of ash four to six inches deep, containing much burned and charred material. There were many reeds set in the earth, firmly embedded at either end, at the level of the ash. These might have been ceremonial in function.

He who utilized this cavity had apparently taken care to seal up a long crevice which occurred directly above. The crevice is approximately twenty feet long and extends directly upward for about six feet, then veers in an eastward direction ~~tot~~ at an angle of 60 degrees. The sealing of adobe and the stones held in place by it were removed. The crevice was two feet deep in parts. No material was discovered here; but it is possible that the crevice was sealed to prevent the rain from running down into the cavity proper.

The story of this cliff cavity bears testimony to the life of an early American; to his courage, daring, and inventive genius. Hence it is of interest to us, who are of the same human essence; and who strive in much the same ways, to solve the problem of life.

Don't you think that is an interesting write-up, Chief?

After we went to press last month, I found I had forgotten to speak of the cover on that report. It was due to a sort of jam we got ourselves into over the month-end when the work piles up and we get short-handed. I wish we had some sort of a folding clerk or stenographer who could help us out over that rush period and then let us fold him up and put him up on one of the back shelves until the next month.

Well, that cover, which is our last one from poor Ed. Rogers, was of The Mittens up in Monument Valley, and if you will take another look at it I won't have to tell you why it is so named. It is only one of the many formations which you can see in a day's drive with Harry Goulding who has picked one of the best cooks outside the Park Service and talked her into settling down up there with him where you can sit on their front porch and look into a fresh world that man has not yet spoiled and see sun-sets that the Great Architect seems to build just for his own pleasure. It is one of the three biggest churches I know of, - - Tillie and Tom Boles being the janitors of the other two. Some day that country is going to be in a national park and if we don't watch out it will be cluttered up with a lot of so-called improvements like good roads and million dollar hotels and so on. Chief, don't let them do it. Busy as you are, the best investment you could make of a couple of weeks of your very crowded summer next year would be to go out there with the Wetherills and the Gouldings and the Wilsons. That country isn't just restful for the body; some way it sort of cleans out a man's soul. You will only understand what I mean after you go out into it. Pint size humans don't stand it very well and have to get together after supper and play cards or do some of the other every day stunts, but I'm paying you the compliment of believing you will like it and can sit down and soak it all in and not have to run from it or cluster up with a lot of human bugs to keep it from over-powering you.

M

Say, Chief, Tom Vint has gone and pulled another publicity stunt fo r e Landscapers. You remember about four years ago when he went down into e of the fartherest reaches of the Carlsbad Caverns and broke a hind leg d had to be packed out? At the same time he pretty near broke Tom Boles' art because it was such good publicity yet Boles couldn't use it for fear would flare back on his Cavern and scare people into believing the trip rough there was dangerous; so he had to keep pretty quiet about it.

Well, this time the Chief Bopad pulled one in Bandelier National nument and we are keeping quiet about it just like we would about a raise our salary.

He fell out of a tree!

Now that it is all over and Tom is back to normal, we don't mind ickering a little about it, but he had us scared that night. Fortunately fell on his shoulders and head, which seems to be a pretty safe landing er for Landscapers.

He does pick out the funniest places for these publicity stunts. ere he was at the bottom of Frijoles Canyon, so battered and sore that erybody thought he had broken his differential or something, and he rode the 900 foot tram way to get out of the Canyon. There wasn't any charge at that elevator, but when he got to town, the elevator pretty nearly ined him because in the La Fonda the elevator goes up among the highest priced ms in the hotel and Tom was so sore by that time he couldn't walk around the Scotch rooms and had to take a seven dollar and a half one next to elevator.

I forgot to say it was a pinon tree and he was up there with the her nuts.

Bob Rose wrote Dr. Forbes, Director of the Arizona Agricultural periment Station, in part as follows: "Information you might have as to the ancients determined the grade of their canals would be greatly preciated. We have surmised that little pilot ditches were run in ad- ice of the digging operations, and in this way the most satisfactory course determined. However, about a week ago a young engineer mentioned the sibility of an instrument having been used consisting of a hollowed out nk of a cactus to hold water, and a device mounted on this trunk to termine grade. The principle, according to him, hinged upon the fact that el of water in the log section was the reference level. The long stick ice running the length of the log could be set at any desired angle with erence to water level. This young engineer was unable to give me any erence to such a device in literature; he could only tell me that a cer- n young fellow of his acquaintance had found a few scraps of wood which took to be the pieces of such an instrument."

In reply, Dr. Forbes had the following to say: "I think the possibility an instrument for water levelling such as you describe is most unlikely. ood irrigator can stand in the middle of a quarter section of land and tell one side of the tract is six inches higher than the other; and the Ind ians th no instrument to guide them, probably could do as well in determining ection for a canal. The ancient canals in Salt River Valley were laid on a flatter grade than the modern ones, - - quite practicable by llowing pilot canals or observing the run-off of storm waters. I am not

"I am not aware of any device in use by our Indians of this degree of ingenuity; moreover there are old ditches in localities far from giant cactus territory, and hollowed out logs would be still less likely.

"The modern Papagos take out their storm water ditches on judgment only, and judgment, plus trial and error seems to me most likely for the ancients."

All of which reminds us of a talk we once had with a Governor of the Territory of Arizona in which he told me of the use of what he called a 'belly level' in running some of the early ditches around Florence. You just filled a tub full of water and floated a board on the water and nailed a good sized nail in each end of the board, leaving the heads projecting above the board to form the angle you wished to run. The 'surveyor' laid down on his 'tummy' and, sighting over the nail heads, showed the rod man where the line would have to go. The Governor said he had run very good ditches with such an instrument, though at the time I was talking to him he had such a portly figure that I thought it would take a pretty tall tub to fit him.

It is a very widely held theory in the Southwest and has been so for many centuries, that when a potter creates the breakable, perishable body of a bowl, she at the same time creates the imperishable spirit of a bowl which can never die but which will be released and go into the spiritual world when the body of the bowl is broken.

I am minded to speak of this because when we were running from Santa Fe over to Aztec a week or so ago, we stopped at a little wide place in the road called San Ysidro and Hugh bought himself a nice Zia bowl. It had some rain cloud symbols and some birds on it and was pretty nice and he was tickled about it and wrapped it up in a couple of blankets and took a great deal of care of it the rest of the five or six hundred miles home.

Then when we arrived at the parking ground in the residential area at home, Frank, out of the kindness of his heart, helped unload the car and pulling an armload of blankets out, dropped the Zia bowl on the pavement and its spirit departed promptly into the other world. I think Hugh talked it all over with his gods but the net result was that he had a couple of handsful of broken pottery and the value of his bowl was considerably reduced.

Here's one we picked out of the air as we went to press last month:

FRANK PINKLEY,
COOLIDGE, ARIZONA.

HAVE HAD BRASS HATS VINT, GABLE, HAMOND AND LANGLEY ALSO TILLOTSON OVER THE WEEK END CONSEQUENTLY WILL BE A DAY OR SO LATE GETTING OUT MONTHLY REPORT. HOPE YOU CAN WAIT AND INCLUDE IT IN YOURS.

SMITH.

Needless to say we held the press, so to speak, and the report came through promptly. Hereafter if they gang up on you like that, White Mountain, I suggest you let them climb your petrified trees while you get out the report. We just put this in because we told Charles we were going to and he didn't think we would.

O

I am sure all hands and the cook will be glad to hear that Winnie an has recovered from her operation where we left her in the hospital t month and is back at home in the Chaco Canyon feeling fine.

- - - - - - -

Here is one we picked out of the mail bag which shows how Leonard ton is going after the educational side of his work.

"Dear Mrs. Udall:

"I am writing you for some information regarding the first graph office here at Pipe Springs National Monument as you were the rt telegraph operator in Arizona and at this Monument. I wish you would er the following questions if you can remember the conditions.

"First, I want to thank you for the picture and autograph sent me by daughter, Pearl Nelson, and also the reason that I am asking for this rmation. I want to put back into the fort the telegraph instruments fixtures in the office as they were when you were here and make every- g look as near like then as possible.

"First, I would like to know just what part of the building the ice was in? I have always understood that it was in the west end of lower building on the second floor.

"Next, I would like a description of the desk and fixtures used the office and where they were located.

"I would like to know how long you were here and how much business was ied on over the line, also of any outsianding messages that might have sent in connection with Indian troubles or the like.

"Probably you will remember the two signs that were placed on the east of the fort advertising the telegraph office and the wording that was hem. If so will you send that along with the rest of the information e used in the restoration of the fort.

"I am asking this on behalf of the Office of National Parks, dings and Reservations."

- - - - - - -

That is an effective and affecting tale Tom Charles tells about the little kid having to give up his sand, isn't it, Chief? He had Bob Rose / Hugh Miller most crying the first time they read it.

Looks like we ought to get some reason for the redness of those s. Maybe they are blushing with pride because the Great Architect has ted them so close to Alamogordo and one of the livest Chambers of Commerce he whole Southwest.

We are glad to know that Tom seems to know George Boundey. Some way seems to bolster up our faith and if we can get a couple of the boys here he office to go in with us we may be able to absorb some of those weather rts; I'm willing to believe a third of them.

Strange that both Tom and George should have reformed and joined the Service and are now living better lives.

- - - - - - - - -

Well, I guess this cleans up the desk, though the chances are that won't get into the mail until we remember something we forgot to remember ut in before we stopped. Anyway, we had some fun getting this out.

The Boss.

, 1931)

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

STATUS OF PERSONNEL

Southwestern Monuments National Park for the Month of OCTOBER 1933

	This Month		This Month Last Year	
	Appointed	Non-Appointed	Appointed	Non-Appointed
er of employees beginning of month	18	16	27	1
er of additions	0	6	1	36
al	18	22	28	37
er of separations	2	10	1	36
er of employees close of month	16*	12	27	1
er of promotions during month	0	0	0	0
regate amount of annual leave taken	0	0	0	0
regate amount of sick leave taken	0	0	0	0
regate amount of leave without pay	0	0	0	0

* Includes 3 nominal custodians.

UNITED STATES

DEPARTMENT OF THE INTERIOR

NATIONAL PARK SERVICE

STATUS OF PERSONNEL

Southwestern Monuments

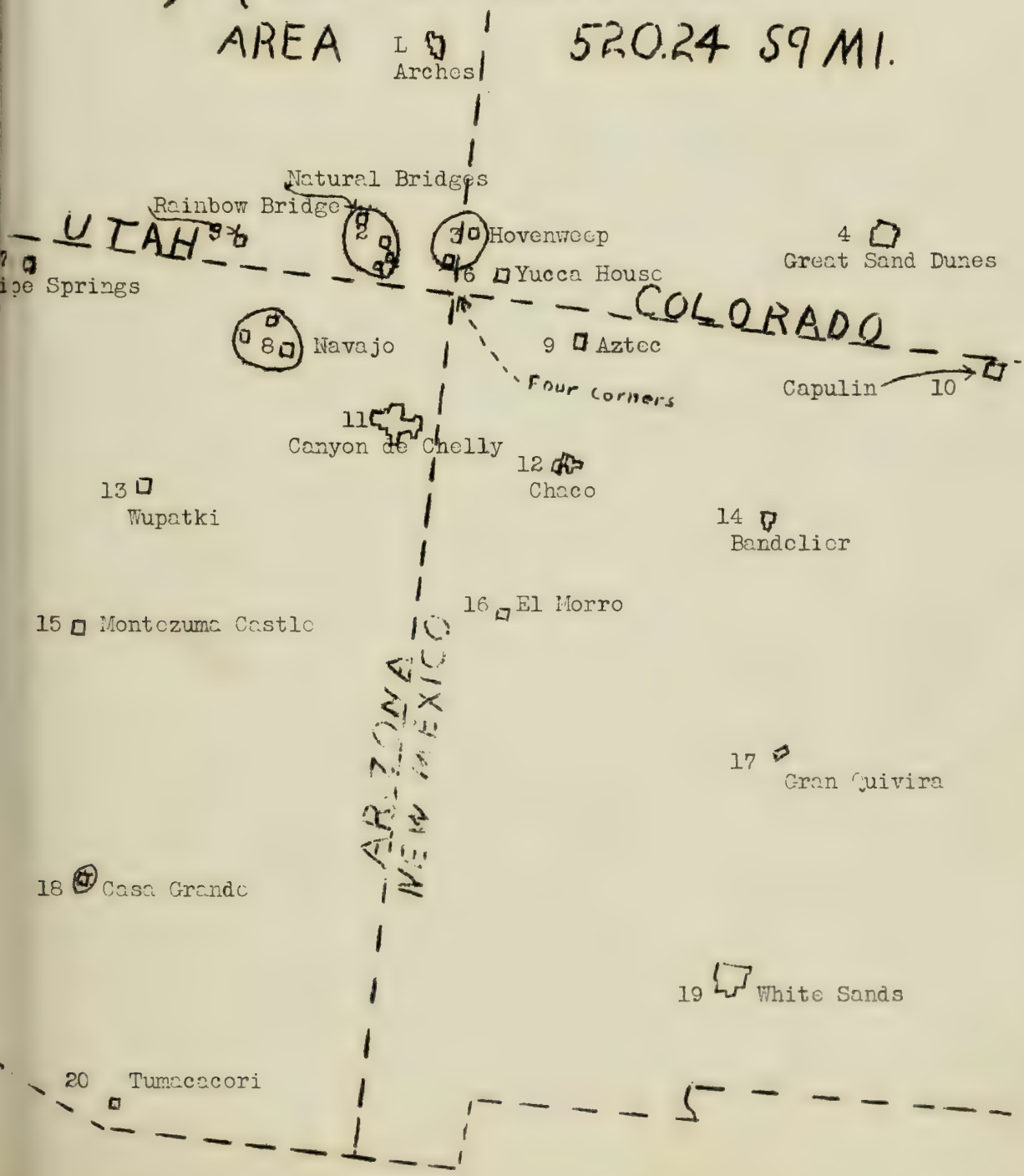
National Park for the Month of October 1931

	This Month		This Month Last Year	
	Appointed	Non-Appointed	Appointed	Non-Appointed
Number of employees beginning of month	14	16	27	4
Number of additions	0	6	1	36
Total	14	22	28	37
Number of separations	0	10	1	34
Number of employees close of month	14*	12	27	1
Number of promotions during month	0	0	0	0
Aggregate amount of annual leave taken	0	0	0	0
Aggregate amount of sick leave taken	0	0	0	0
Aggregate amount of leave without pay	0	0	0	0

* Includes 2 seasonal guardians.

SOUTHWESTERN MONUMENTS

AREA 520.24 SQ MI.



The Southwestern Monuments Monthly Report for November, 1933

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THE SUPPLEMENT.

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF NATIONAL PARKS
BUILDINGS AND RESERVATIONS
SOUTHWESTERN MONUMENTS

Coolidge Arizona, Dec. 1, 1933.

The Director,
Office of National Parks,
Buildings and Reservations,
Washington, D. C.

Dear Mr. Director:

A busy month of November now becomes recorded history through the various reports that follow. Climatic conditions were quite mild until the latter part of the month when a snow storm north of the Mogollon Rim and cold rains to the south brought the ideal Fall to a close. Figures on travel for the northern monuments will read low until Spring. However, the pushing of the Civil Works Program, recently approved, will give plenty of problems of a different nature to look after.

Getting the recent work under way has been the main problem at Aztec, Bandelier, Chaco, and the next few days will find plans completely made for the Civil Works projects. It's a pleasure to see how the personnel is cautiously but speedily taking right hold of these new problems. There's nothing quite as pleasant as seeing all pull together promptly for all their worth.

Report of Ass't. Sup't. Rose.

Upon the request of Architect Langley I drove to Flagstaff on November 28 meeting him there to talk over matters pertaining to Wupatki. Mr. Langley's special mission was to make a preliminary study of the future development of Wupatki National Monument.

On Tuesday Evening, the 28th we met Dr. Colton, Director and Mr. Hargrave, Assoc. Director of the Museum of Northern Arizona. We planned a trip out to Wupatki the next day. We visited Wupatki, Citadel and Wukoki ruins, the latter being off the Monument. It was our feeling that the matter of including all detached areas of the Monument into one single area by addition should be considered carefully. Having detached areas makes for certain difficulties of administration and development which would be greatly simplified by having the whole area in one lot.

While up there on this field trip word was received at Headquarters that Civil Works projects were approved. The Boss and

Chief Clerk Miller attempted to get in touch with me by wire at Flagstaff before our trip to Wupatki but were not successful. A heavy snowstorm was lashing northern Arizona disrupting practically all communication for 20 to 30 hours. However, we did go into the proposed C.W. A. work in a general way and from carefully prepared maps of Wupatki already made by the Museum of Northern Arizona and Colton and Hargrave's intimate knowledge of the work to be done, approved plans will be quickly forthcoming.

Leaving Wupatki, we drove to Flagstaff where Dr. Colton and Mr. Hargrave levt us. Langley headed immediately for Grand Canyon and after about an hour I started from Flagstaff arriving at Williams for the night. The snow was banked along the road while in places the snowplow had not yet cut through. There were several delays of traffic for 15 minutes to an hour between Flagstaff and Williams.

Leaving Williams the following morning I drove to Grand Canyon. There I talked with Supt. Tillotson briefly on CCC matters and had an enjoyable hour with Ranger Naturalist Shellbach who is working on a revision of the Wayside Museum of Archeology exhibits plan. Temperature was about freezing and there were a few inches of snow on the ground. Mr. Shellbach gave the talk on the Story of Grand Canyon in the lecture room of Yavapi Station.

During the month more than 200 copies of a circular entitled "Protect the Ruins" were prepared for the CCC Camp in Bandelier. I might say that upon Acting Custodian Evenstad's request the matter of rules and regulations against vandalism was taken up with the men by the Camp Commander upon the arrival of the men in the Canyon. Shortly after that the Circulars I prepared were distributed to each man. Mr. Evenstad reports that vandalism will be far less than that which would be caused by an equal number of tourists. We're aware of new problems in ruins protection arising out of the location of camps of workmen in our monuments and in every instance the men are being informed clearly on the regulations.

At odd times cataloguing the Museum collection at Casa Grande has progressed. This is being done on standard catalogue cards approved by the Washington office. This should be done for Aztec Ruins National Monument before the present collection is disturbed or the new Museum building is completed. Mr. Faris realizes the importance of this and I hope in the near future to get up there to introduce the standard system.

AZTEC RUINS NATIONAL MONUMENT: Johnwill Faris, Custodian, Aztec, New Mex.

Visitors for the month total 361. This is a slight increase over the same month last year, which can probably be accounted for by the late Fall and the open passes. At no time since my arrival at Aztec has the number of visitors indicated less just how busy we have been. Cooperation of your office and of the Landscape and Engineering departments has been invaluable to us.

All work under our Public Works allotment is moving along even better than we had anticipated. With Oscar Tatman as my right hand man on the grounds we are making every effort to keep the work moving, and at the same time meet the seemingly hundreds of requests for reports.

It has been our good fortune to have with us Engineer Hamilton on several occasions during the past month. Mr. Richey accompanied by Lyle Bennett also dropped in on us for a few minutes.

No doubt your office has received word that Earl and Ann Morris have a new baby girl who arrived November 9th. We are saving a portion of our Ruin that these girls might observe first hand proper methods of excavating and archeological research with their Daddy as instructor.

With every good wish to the entire force and our sympathies to Hugh Miller".

(In the Southwestern Monuments office we don't know whether Johnwill is sympathising with Hugh because of additional burdens connected with the recent works projects, or if Johnwill is under the impression that Hugh has recently gotten married. as to the latter, Johnwill must save his sympathies until later).

BANDELIER NATIONAL MONUMENT: M. O. Evenstad, Acting Custodian, Box 1321, Santa Fe, New Mexico.

Visitors for the month total 155. This is partly actual count and partly estimate for the days I have been away from the monument on ECW business. A rather heavy snow fell on the night of the 4th and continued on throughout the 5th. The total fall was about 12 inches. The weather warmed up in a few days, and most of the snow thawed in about three days. There are still traces of it on the north sides of the mountains. Except for the snow, the weather has been very fine. The thermometer has, of course, been below the freezing point every night of the month, with one or two exceptions, but on the whole we have not had any real cold weather. Our main activities for the month has been in connection with the ECW work and the establishing

of the CCC camp, further details of which are shown below.

ECW Activities: The Army temporarily suspended construction on the camp buildings on the 1st, due to depleted funds, and actual work did not start again until the 9th. At this time, most of the work has been completed, only the bureau personnel quarters being still incomplete. Some of the inside work is yet to be done. Officers quarters were made ready for occupancy yesterday, and officers moved in with their families then. They were quartered in the hotel's cabins up to this time. The heavy snow on the 4th and 5th caused the collapse of several of the tent quarters in the Los Alamos camp, and on the evening of the 5th, the CCC boys commenced moving into our more or less unfinished barracks. By the 7th, the move had been completed as far as the personnel was concerned, but supplies continued coming in for several more days, before the move was actually complete. This sudden change in plans caused many inconveniences, but everyone seemed to make allowances for the emergency conditions, and the camp was soon comfortably established even though the barracks were not ready for occupancy.

A separate camp was made for the supervisory personnel near the parking area on the canyon rim. This camp will be continued until the truck trail into the canyon is completed, which will be soon after the beginning of the new year if weather conditions permit. The first mile has been cleared for the grading crew, and some work has been done on the second mile, including some blasting of rock through a cut. A warehouse for the miscellaneous tools and supplies has been built on the canyon rim, and the combination blacksmith and machineshop is practically complete. A small powder house has been built at some distance from the other buildings. The shelter shed for the trucks and other equipment has been started, and should be done in less than ten days. This will practically complete the construction of the buildings for the ECW work.

Two cabins have been rented from the public utility operator for office and drafting rooms. A clerk from the CCC camp has been employed in the office as clerk, and I have good hopes that he will prove a competent man. Nine foremen have been appointed for the supervisory personnel, most of them men from the former Forest Service camp. These men are housed in tents, with wood floors, on the canyon rim, and are operating their own mess. Mr. Lyle Bennett, from the Landscape Department, reported for duty on the 16th. Mr. Charles Richey, also of the Landscape Department, spent three days here on official business.

The Acting Custodian has made a number of trips during the month, practically all of them on business in connection with his duties as procurement officer for the ECW work. Mr. Walter G. Atwell, who is the engineer in charge of the construction, also made many trips in connection with his

end of the work. Sufficient equipment has been secured by transfer from other parks for our use on the construction. Some miscellaneous tools have been purchased, but most of our tools have been transferred from the Forest Service. We have had very fine co-operation from the various Governmental departments we have dealt with.

With the exception of the materials needed for the truck trail construction, all materials connected with the ECW work has been brought into the canyon on the tramway owned by Mr. Frey. Mr. Frey has given me some interesting statistics on the transportation of these supplies, which follows:

An approximate estimate shows that about 1,500,000 pounds of supplies and materials, or 750 tons, have been transported, or 3,000 trips of the tramway made with an average of 500 pounds per trip. This includes 218,000 board feet of lumber, 42,000 feet of cellotex, 10,000 pounds of nails. The best record was 187,000 pounds in 3 days, while the camp was being moved. In 55 minutes, 3,800 board feet of lumber was transported. The tramway is 900 feet long, the drop is about 500 feet, the size of the cable is 5/8 inch. Two trucks were sent down after being dismantled and have been used for hauling the materials from the foot of the tramway to the camp. Mr. Frey reports that no damage was done to any of the supplies and there were no injuries sustained by any of the employees. This tramway will continue to be used for ECW purposes until the truck trail is completed. We believe that ours is the only CCC camp using this method of transportation.

CASA GRANDE NATIONAL MONUMENT: Hilding F. Palmer, Custodian, Coolidge, Ariz.

I have made so many reports during the month of November in connection with Public Works that I am late with my monthly report to you.

Much has been accomplished at Casa Grande during November and although we show a decrease in visitors over the same month last year it can be blamed solely on the weather for two or three bad days at the end of the month cut down our attendance which up to that time had been slightly over that of last year. 2025 visitors were given individual attention on 238 tours of Compound A and 227 museum lectures. These 2,025 visitors came in 593 cars from 40 states, Washington, D.C., Hawaii and 6 foreign countries; slightly over 60% , or 1,222 of these visitors came from Arizona; 15%, or 303 came from California, Texas being third with 83 and Illinois fourth with 51. In addition to these 2,025 who were personally contacted by the personnel and given guided service through the ruins and museum, there were 269 who entered the Monument and used some of it's facilities, but did not take advantage of the Educational services, making a total visiting list of 2,294.

We are, of course, going into our busy season as far as visitors are concerned, and our visitors are improving in quality every day and require

more time of the educational personnel.

The weather was ideal up until the last two days of the month when for those two days we had 1-1/4 inches of rainfall with a consequent drop in the temperature. The average maximum temperature for the month was 80.2 degrees, the average minimum was 37.5 and the average was 58.85. The maximum temperature was 89 on the 16th and the minimum 28 on the 6th. Total precipitation was 1.29 inches. There were 25 clear, 2 partly cloudy and 3 cloudy days. One or two days before the rain were very disagreeable on account of bad dust storms.

The Public Works Program is going along nicely. Work was concentrated on the walls around the Administration Building and as a result they are ready for the plasterers who will start Monday morning. These walls have permitted the removal of temporary guard rails, wooden fences, etc., and the Administration Area now presents a very much improved appearance. They also prohibit people from going to the ruins of Compound A without coming to the Administration Building where they are met by a Ranger.

No more work was done on the Camp Ground project during November. The project is practically completed with the exception of the building of a swing or two and a teeter for the children. This will be done during December.

The water extensions project is completed. All lines have been enlarged to 1-1/2 inch; five lines have been run to each building in such a way that any part of the building can be reached with 50 feet of hose; the storage capacity of water was doubled by replacing 2 - 500 gallon steel tanks with 2 - 1000 gallon steel tanks.

The repair of two quarters is proceeding slowly. Painters are now at work. This Public Works Program has given work to fourteen men during the month. The monthly payroll was $1,025.40.

Our other project, the construction of a new quarters, is not started yet. This project will be contracted and working drawings are not yet available.

The month has been a very satisfactory one. Everyone has been busy and all work is caught up and we are ready to go on the new CWP as soon as we get definite instructions.

CAPULIN MOUNTAIN NATIONAL MONUMENT, Homer J. Farr, Custodian, Capulin, N.M.

I have the following report to make concerning Capulin Mountain National Monument for the month of November, 1933.

Weather, the most beautiful and warmest November this country has seen in twenty-five years. We have not had a cloudy day this month.

Travel has been fairly good this month, approximately six hundred visitors although the road has been almost impassable. A great many are taking the trail to the top. We hope to be able to place the proposed trail and the road in first class condition with the Emergency CWP aid.

General trade conditions in this territory are very very bad, and it appear to the writer that the depression is at it's very worst in this community.

CHACO CANYON NATIONAL MONUMENT, Hurst R. Julian, Custodian, Crownpoint, N.M.

The month of November, 1933, gave us 421 visitors who registered from eleven states and the Republic of Mexico.

There seems to be a dearth of news for this report, nothing unusual has occurred, nothing spectacular has been accomplished, and there is little to report.

Quite a bit of my time has been spent in the office, working out plans for the development of the Chaco, such as the "Six Year Development Program", the various public works projects, and the matter of the Chaco road. Mr. V.W. Marquis, of the Bureau of Public Roads, has been here twice inspecting and reporting upon the road project, but as yet, no dirt has been turned.

Some time has been spent going after, and answering telegrams which concerned development projects. A telegram is just a telegram to most of the units of our organization, but a telegram to the Chaco often means two days off to town to answer it, at considerable expense. But, if they will do any good, I am in favor of them.

We have been giving the visitors "service plus" on several occasions during this month. A rather plentiful snow fall, which melted quickly, left the freshly graded and soft road in a terrible condition in spots. I spent several days patrolling the road and digging visitors out of mud holes. Shovels jacks, chains, and tow cables were standard equipment for a while. I also carried ten extra gallons of gas and a quantity of water. Once I had to go after a new battery for a stranded motorist. The gratitude of a rescued traveller is touching. They all seemed to feel that the "Office of National Parks, Buildings and Reservations" was the most eleemosynary and altruistic branch of a benevolent government. In fact, I find them more interested in my tow chain than they are in my lectures on the ruins.

The Griffin Lodge being closed, a number of visitors found themselves without the necessary accomodations, these we tried to supply at the Custodians residence. A number of very interesting people were met, and several gratifying contacts were made because of this condition.

The road to the north has been in fair shape during most of the month, it seldom gets very bad, although Mr. Vreeland, who comes with an introduction from Mr. Albright, could not get his trailer down the hill. Perhaps it would be more accurate to state that he felt that if he did get the trailer down the hill, he certainly would never get it up again. Unfortunately, I did not get to see the Vreelands, when they arrived I was out working on the southern approach road and when I came back to the Canyon, he had departed. However, it is perhaps the good fortune of Mr. Vreeland, as he received the expert attention of the H. C. W. P., in my absence.

The through traffic on the Chaco road, from the San Juan Basin to U. S. 66, shows signs of a steady increase, perhaps the news that work was being done on the road lured some of the traffic this way.

EL MORRO NATIONAL MONUMENT, Evon Z. Vogt, Custodian, Ramah, New Mexico.

The month has rolled around. The most notable happening is the letter I have from Chief Engineer Kittridge notifying me of the Civil Works Program as relates to my Monument. 50 men who can live at home are to be employed. I am now trying to make a set-up so as to cover the most pressed cases within this region who can go to work right away.

Unfortunately, I have not received Circular No. 1 on the Civil Works set-up so I am in the dark as to how to proceed. If you have a copy of this circular please let me have one at once.

Snow is liable to fall at any time now, and thus delay what we plan to accomplish and perhaps even stop some of the work planned. I am counting, of course, on all the help you can give me in a technical way, and in an advisory way.

I have been chairman of the Relief Committee for Western Valmecia County for a number of years now, and have dealt out a lot of Red Cross flour, etc., have made a study of the cases and families and know pretty well how to pick the labor so the greatest good can be accomplished.

Today I am going to Santa Fe on some land business and while there, I will get lined up on road equipment in case we need it.

I am most anxious to carry out the program with the greatest of care and efficiency and yet to do nothing at my Monument or have any thing done which will in any way detract or spoil it. It is so lovely now, that anything that is touched there must be done only after careful thought and advice.

The weather is still wonderful, but we do not and never will forget that we are now in the anniversary of the terrible snows we had in this month in 1931. Sheep and cattle are doing fine, tho steers are not moving on the market to any extent.

Some are gathering their steers, expecting buyers who have paid the suicidal price of 3¢, but there is no certainty of sale at any price.

Sheep men are through shipping lambs which brought 4 to 5¢ for the most part. Our lambs weighed 58 lbs. and 2,500 head of them brought $5.05 per hundred weight. I delivered them on the cars at Grants on the 12th. All we billed to feeders near Greeley, Colorado.

The Indian lambs weighed out at Gallup were lighter than usual, and brought around 4 and 4-1/2¢ per lb. With the new Corridale and Romney rams which Mr. Collier, the Indian Commissioner, has had the Indians buy, I predict

a very much better lamb from the Indian sheep in a few years.

Farmers are getting 3¢ for beans and 1¢ a lb. for their corn so their prices are still down to a low price.

Travel has been light, but we have had a number of distinguished parties. One of them includes Witter Bynner the poet and writer of Santa Fe, and Mr. D. G. Kideer of Yosemite National Park, whom I take to be a National Park Official.

The cement capping I put on the east cattle guard looks like a good cure despite the cold weather at night. The new east gate is also a great improvement, but I wish to trim the gate posts off so that they will be of uniform height.

Road engineers are still surveying, but no construction started. With snow imminent, we really do not expect much work on the road this season. The Public Works Program was well planned and intentioned, but it's wonderful benefits have not reached our part of Valencia County.

I have read your last report and the Park Service Bulletin with great interest.

By the way, the map of the United States of the Recreational and Park Areas in the nation are in great demand among the homesteaders, and even some of the schools, which have no allowance for maps, have asked for them so I am making good use of them.

GRAN QUIVIRA NATIONAL MONUMENT: W. H. Smith, Custodian, Gran Quivira, N.M.

For the month ending November 20, I have registered 370 visitors, entering the Monument in 90 cars. I am boasting of this showing an increase of about 159 over the same month last year. The number of tourists varying from but very few some days to as many as 108 on October 29. That was my busiest day. I made a number of museum talks and as many guided trips through the missions and the Indian pueblo.

October 30 and 31, and November 1, were spent to do the most good where badly needed. I spent these three days repairing the road of approach and the stock guard. The time was undoubtedly well spent too. As we got the road in comparatively good shape and a temporary stock guard installed. This put the road in shape to where one car get over it fairly easy and eliminates the gate troubles.Weather conditions for the past month were the best I ever saw in this region at this season. There has only been two snows this fall. One came November 2nd, and another light skiff on November 5th. Since then, the weather has been warm. Beautiful clear days. This weather has been fine for travel, which possibly is one reason for the increase in travel, but I don't like to think so. I want to think that our Monument is gradually coming into it's own.

It was with great sorrow that I learned of Ed Roger's death, in last month's report. My sympathy goes out to Mrs. Rogers at this time of sorrow. Although I was not personally acquainted with Mr. Rogers, I feel sure that we all will miss him.

MONTEZUMA CASTLE NATIONAL MONUMENT: M. L. Jackson, Custodian, Camp Verde, Ariz.

Report time has arrived and not a great deal of interest to report. November is usually a slow month at this monument--a between season period--the summer visitor has come and gone, and a little early for the winter visitor.

Have had 896 visitors from twenty-one states, Alaska and Canada. The weather has been ideal in our section of the country. Roads have been in good shape, but are getting a bit choppy or corrugated due to the long dry spell.

On the 24th of October, we received a wire that Hugh Curry, who has been a ranger here for the past fifteen months, had been dropped from the service through the 'Reorganization Act'. Hugh made a good ranger while here, and we wish him all kinds of success at whatever he turns his hands to.

You can see by the above paragraph that I have been swinging the job alone for the month, with the exception of two or three days during the latter part of the month, and am afraid that the same brand of service has not been given as heretofore.

With the Verde dam assured and with the several CCC camps near by, we predict a better year than the last two or three have been.

We have been notified of the possibility of our getting some men under the Civil Works program and naturally we are looking forward to their coming as there are a lot of things that need to done here. I am expecting some engineer to wire me wanting to know "Where to get off" as the engineers will no doubt come in and line up the work that is to be done.

PIPE SPRING NATIONAL MONUMENT: Leonard Heaton, Acting Custodian, Moccasin, Ariz.

There is not much to report this month, as there has not been very much doing. Our weather has been ideal for fall, very little cold and frost at nights. The days are just right for working. neither hot or cold, so I have spent most of the time in moving the garage and other buildings that I had by the meadow, making irrigation ditches for the campground trees, and in the meadow so that it all could be watered with less waste.

Have had some work done on the house and grounds this month. I expect to set out about [illegible] trees Saturday in different parts of the Monument.

I have reported in a letter on November 20th, of a visit of the Indian office men, Dr. Farrow and Mr. [illegible]. so will not recount it here.

I have tried to keep an accurate count of all cars, trucks, wagons, horseback riders, and live stock that have come through this monument since October 24th to November 23rd, they are as follows:

Arizona -	trucks	101	passengers	52 trucks
"	cars	168	"	63 cars
Utah	trucks	34	"	17 trucks
"	cars	43	"	22 cars
Calif.	trucks	5	"	2 trucks
"	cars	77	"	31 cars
N. Y.	"	4	"	1 "
N.M.	"	1	"	1 "
U.S.D.I.	"	4	"	2 "
Horseback	riders	148		
Wagons		17	"	13 wagons
	Totals	602		205 vehicles

Of this number I have contacted 73 and gave them the usual visitors trip through the place. The rest, 529, have been local people going to and from town or to their places of business. I really did not think there was this much travel by this Monument, and am surprised at the amount of local travel in such hard times as we seem to have up here.

During the month 1,175 head of live stock have been driven through the Monument to pasture areas and to market.

TUMACACORI NATIONAL MONUMENT: Geo. L. Boundey, Custodian, Tubac, Arizona

Visitors for the month - 924.

Winter visitors are beginning to arrive in Tucson which accounts for the increase in number of visitors.

The trees are beginning to take on the fall colors and as the weather has been ideal, many of the summer birds are still with us.

Four different parties during the month came to look over mission timbers in search for termites. Two different species of insects are at work on the mesquite trees, but neither danger the life of the trees.

The Mexican Government doing away with many of the restrictions in entering Mexico has increased the number of visitors considerably, but many of the visitors seem to have difficulty in obtaining guides for the different points of interest. If the Mexican Government would print some descriptive matter for distribution from this monument, many more visitors could be sent into Mexico.

The heads of families in our vicinity are all anxiously waiting for work to start at Tumacacori. Twenty-five men employed here during the winter months will help this whole community wonderfully.

WHITE SANDS NATIONAL MONUMENT: Tom Charles, Custodian, Alamogordo, N.M.

The White Sands National Monument has a fervent friend in the person of Jack Voyde, a local photographer and tailor. For the past few months Mr. Voyde has given his time largely to the manufacture of White Sands products, mostly statuary, placques and other articles of plastic art.

When the first Anglo-American families came to this vicinity about a half century ago they found that many of the Spanish American houses were finished on the inside with a marble like coat, usually a snow white but frequently in delicate shades and mottles. This was the first American knowledge of the uses of the Great White Sands. Investigation revealed that these early settlers heated the White Sand until each tiny crystal popped like a grain of popcorn. When the tiny crystal "popped" it was dehydrated and ready to be pulverized. When mixed again with water and spread upon the walls it formed an alabaster coat of snow white plaster paris, particularly clean and inviting.

Manufacturing plants have been set up from time to time and White Sands products shipped from New York to California. Women's Clubs have used little slabs of White Sand for place cards at their most exclusive parties; a few of Alamogordo's leading citizens have built their homes of these White Sands. The Sands have been used for many other purposes, but probably no one has been more successful in his accomplishments of making use of the White Sands than the present experimenter, Jack Voyde.

I am sending you a sample of his handicraft, Mr. Superintendent. If you think it is good enough you might pass it on to the Director, we will get you another.

Voyde combines his art of photography with his skill as a moulder and and produces remarkable placques of renowned scenes and characters. An old church is sprinkled with the sparkling crystals of White Sand and it looks like snow. Candlesticks, paperweights and picture frames are mixed with marble dust and mottled with wonderful effect. But probably the most successful of Voyde's efforts is the combination of his White Sands photographs mounted in a White Sands picture frame.

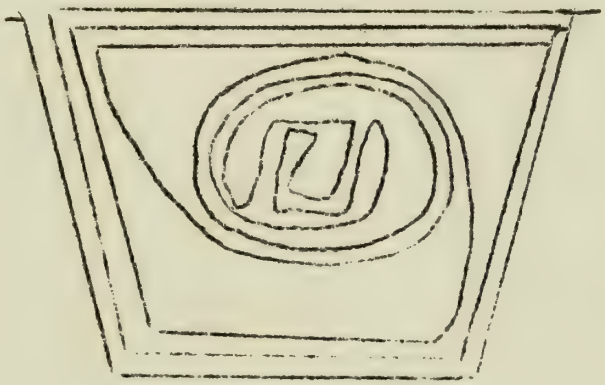
It strikes me that this activity should develop into a source of revenue when the Park Service really takes over the Sands and has even a partial control of the hundreds of daily visitors.

The work that Mr. Voyde has done was without thought of remuneration. It was just a hobby, an opportunity to let off steam along the lines of his inclinations. He has sold nothing, has so far offered nothing for sale. It is some satisfaction to him and to other White Sands enthusiasts that an art store in El Paso is now urging a wholesale manufacture of some of Mr. Voyde's best pictures.

November weather has been ideal - roses still in bloom, figs ripening on the trees here at Thanksgiving time. The recreational value of the Great White Sands is therefore at its very best. This week work was begun on a

$109,000 overpass of the Southern Pacific R R, part of the White Sands highway. We hope to get one more project on that highway early in the coming year.

Recently the Custodian found a very beautiful prehistoric bowl; where the flood waters had uncovered it in a deep arroya. It was red on terra-cotta, with an endless design, (Copy inclosed). Can you tell me if this peculiar swastica design has any significance?

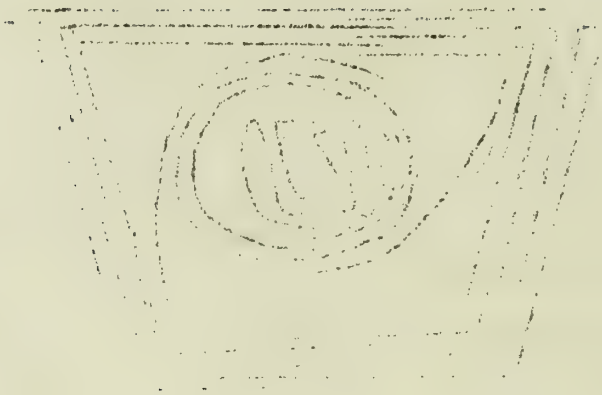


We have the following report from Associate Engineer Atwell, who is in charge of CCC work in Bandelier:

"Acting Custodian Evanstad has agreed to cover all monumental matters in his report and I all CCC activities, so our reports will not duplicate. For that reason I will stay with the new camp and it's work.

The establishment of the camp in Frijoles Canyon of Bandelier National Monument was the main engineering activity during the month of November. Camp F19 of the Forest Service was to be transferred to Bandelier as NMLN on November 15th. Previous to November 4, the army had partially completed the barracks, but had suspended work several times on account of shortage of funds. On that date, 24 inches of snow fell and Camp F19 was flattened to the ground. Transfer of that camp started at 9 P.M. on the following night with the arrival of several score of men with no sleeping quarters, fuel or food. These men occupied the partially completed barracks, but anyway the birth of Camp NMLN had arrived. As additional funds became available, the camp was further constructed with carpenters working over bunks and luggage. To date, the camp is not completed although many CCC men have been continually on it for three weeks.

During the construction of the camp, as there was no road of any kind into the box canyon where it is situated, all of the material had to be lowered down over the cliff on Mr. George X. Frey's private tramway. Mr. Fre-



operated the machinery himself, and as yet, has his first egg to crack. The material moved consisted of two trucks, a quarter million feet of lumber, kitchen ranges, an electric light plant and enough incidentals to bring the tonnage to a million and a half pounds. Mr. Frey has constructed a novel stretcher where he can hang a crippled workman on the cable to be removed from the canyon.

The camp is well supplied with material to work with. From Chief Engineer Kittredge's office we secured eleven trucks, two compressors and two tractors. From the Forest Service, we secured a ripper, a tumble bug scraper, some rolling stock and small tools.

Although the camp has been in Frijoles Canyon since the first week in November, the men worked for the Forest Service until the 15th, when they were transferred to this Monument. The work for the two weeks that we have been operating since taking over the camp has consisted of:

1. Erecting small construction buildings for the work, as garages for the trucks, tool sheds, warehouse, blacksmith shop and powder houses.

2. Placing 10 miles of approach road into the Monument into shape with tractors and graders, thus assuring a fair road from the highway to the Monument.

3. Clearing, grubbing and burning the brush on the right-of-way for the first mile and a half. All timber of suitable size was cut into four foot lengths and delivered to the camp for fuel. The brush was piled in small piles and burned in the center of the right-of-way, great care being used to that no trees standing were scorched.

4. Rock cuts have been drilled and partly shot. Very good success was accomplished in the shooting. No material was wasted and the material was broken very fine. It could easily be fresnoed.

5. Grading with the tractors, tumble bug and bulldozers is getting the first mile into shape.

6. A ten man crew has started to reconstruct the trail from the hotel to the Rio Grande.

If the weather permits the truck trail will be well into Frijoles Canyon by New Years. And Boss, you could help a lot if you would arrange to have Sol take over the duties of J Pluvius for the coming month.

In a second letter, Mr. Atwell reports as follows:

I do not need anything and I have no complaint to make. This is just a news letter regarding the CCC camp at Bandelier National Monument.

The camp strength is not up to normal on account of men being away on leave. All should return in a few days. We will weed out the "no goods" and get to full strength before the closing day, November 30. The army is not turning out our quota, but as soon as we get plans enough O.K.'d, we will get 175 men.

The line is cleared to Sta. 55 as far as plans are approved. The grubbing will be that far Tuesday. The grading is getting well under way, and we will have the sod broken that far in a week. As there is no heavy grading on the first mile, and the cost of making the road wider than 12 feet will cost practically no more as all it consists of is blading out the ditches and putting up the shoulders, I will build a standard road across the top of the mesa as far as I can with the machinery without increasing the man output. From Station 80 on, the cost would be greater, so I will construct only a 12 foot trail.

Wednesday we will use the surplus men on repairing the first few miles of the trail down Frijole Creek to the Rio Grande. We are also cutting some wood for the camp. We have the tool house completed, the blacksmith shop and repair sheds nearly finished and are ready to construct the car sheds. We have invoiced every tool and dojigger that we took over from the Forest Service. Martin has a CCC clerk and his records are getting into shape. Martins is doing the buying and that is a job when he has to get a hundred little items.

The water system plans will be on the way to you in a few days.

— — —

IN GENERAL:

1. All reports indicate that weather conditions have been unusually fine during the month of November. At this time one year ago winter had descended in all its fury on the northern areas of our district.
2. The reins of our organization have been tightened considerably in interests of efficiency in handling the various works programs now under way. Generally speaking, book and paper work and plans have been handled promptly and been kept strictly up to date.
3. We're keenly aware of the added responsibilities with reference to vandalism which these projects are bringing and men in charge at the various monuments effected are acting on these problems in cooperation with camp officers and foremen.
4. In the Southern monuments of Casa Grande and Tumacacori the rising tide of winter travel is becoming effective. We're endeavoring, despite the work of special projects, to deliver the same good brand of public contact services.

Thus ends a month of considerable activity and at least some accomplishment,

Cordially,

Robert H. Rose,
Assistant Superintendent.

SUPPLEMENT TO THE
NOVEMBER REPORT OF THE SOUTH-
WESTERN MONUMENTS
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(Dealing with people, "Shop Talk" and news of interest)

First place in this Supplement is given to Leonard Heaton, Acting Custodian of Pipe Spring National Monument. Mr. Heaton has been gathering data on the first telegraph station in Arizona. Pipe Springs became the first telegraph station in the state when the Deseret Telegraph line reached there in December, 1871. This line is still in use as a telephone line running into the town of Kanab, Utah.

Mrs. Eliza Luella Stewart Udall, now residing in Mesa, Arizona, was operator at this station for less than one month. Mr. Heaton wrote her recently regarding the location of the telegraph office in Winsor Castle, the old Fort at Pipe Springs. In reply, Heaton received the following reply from Mrs. Udall:

Mesa, Arizona,
October 21st, 1933.

Mr. Leonard Heaton,
Moccasin Springs, Arizona.

Dear Sir:

"Your letter of the 2nd instant received concerning the telegraph office at Pipe Springs. As it was more than sixty years ago my memory may be faulty. However, I will answer your questions to the best of my ability.

"I think your information concerning the location of the office is correct, the West end of the lower building on the second floor. The small unpainted pine table that the instruments were on was on the north side of the room. The instrument consisted of a key and a little box relay or receiver in natural light wood.

"There was a cot or couch in the room, on which I slept and also a number of chairs, perhaps not more than two. Also my trunk and belongings were here as it was my room as well as the office. Everything was quite primitive.

"There were no Indian troubles or outbreaks while I was there and no important messages. In fact I was there less than a month and everything was so peaceable that Mr. A. P. Winsor who was in charge of the Fort did not think it necessary to keep the office open.

A.

"It was from the Kanab, Utah Office that Major Powell sent his messages and I was operator there for more than seven years before we moved to Arizona in 1880.

"There was just one sign at that time and it read "Deseret Telegraph Office" as it was on the L. D. S. Church line.

"Sup't. Amos Milton Musser came to Kanab and opened that office in Bishop Levi Stewart's residence then took me in his buggy to Pipe Springs, connected the instruments, and sent message to the Deseret News(Salt Lake City) stating that the office was opened with Miss Luella Stewart, Operator. As I remember, it was the last of December, 1871 or about the first of January, 1872.

"I believe I have answered the questions you asked. If I can be of further service, let me know.

Sincerely yours,

Eliza Luella Stewart Udall"

Mr. Director, this letter is valuable history and this Supplement, we feel, would be worth its while if it stopped right here. Mrs. Udall, an elderly lady now, lives in Mesa which is about 50 miles from Coolidge. Year by year the old original pioneers pass away sealing up original sources of information forever. We hope Leonard will continue to keep in touch with Mrs. Udall who could give invaluable suggestions on the restoration of the various rooms of the old Fort as it was in the pioneering days. Pages K and L of the September, 1933 Report Supplement contain an historical account of Pipe Springs prepared by Mr. Heaton.

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Along the subject of history, we have this one from a ranger at Casa Grande who was beginning a tour of the Casa Grande and Compound A. He was mentioning the visits of the early Spanish missionaries and explorers and commenting on the usual fact of the visit of Padre Kino to Casa Grande in 1694.

Lady Visitor interrupts: "Oh yes, Kino ! -(as she brightens up) at the American Legion Convention last year, the Auxilliary all carried little dolls - one of them was Kino -- his face was a dried apricot and with his black robe and cape it just looked like a Spanish Monk...etc. etc.---Isn't it interesting !"

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B.

Under date of November 24 Johnwill Faris of Aztec writes Earl Morris, Box 500, Boulder, Colorado, on the progress of work. For general news, excerpts from the letter follow:

"I am very glad to report, Earl, that we are moving along at a very good pace. Today twenty one men with three teams moved 104 loads of dirt into the field just south of the ruin. As yet we are not finding a great amount of stone of any nature but then we are reaching the point where it is beginning to show up and I would not be at all surprised that tomorrow we will encounter a good supply of rock. To date we have hauled out three hundred nineteen loads. Almost two hundred of these loads went on the road leading from the town road to the house on in the lane. We will have no trouble in getting rid of the earth. The rock that we get from the debris we are leaving more or less in rows and in a few days after we finish I plan to have a man or two go over these piles and locate for us the ones that we find suitable for building. Oscar and I thought this better than trying to pick out the rock as we go and thus get in the way all of the time. We are most certainly open for suggestions and should any occur to you at any time on any line connected with the ruins I wish you would feel free to offer them. I figure that the dirt will run as we are doing it, about seventy five to eighty cents a yard. I might say that we have three teams and six wagons of the dump type you mentioned and while one is being loaded the other is being hauled away and dumped. So much for the dirt. I will try to keep you posted from time to time as to our progress"

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Further on in the above letter, Mr. Faris discusses the tests for ground water made about the Aztec Ruins. We quote:

"About the drainage, Mr. Morris, Engineer Hamilton and myself with Oscar sunk three test pits the other day, one North of the Museum steps about fifty feet, another at the west wall about the same distance and out and one in front of the blacksmith shop. We find water about the twelve foot line in nearly every case. One thing is very bad: In a test pit in the roofed Kiva we struck water at three feet and the level of the floor is some three feet lower than the level that we struck water at the north wall. In testing several walls to see about the depth the walls went into the earth we find that in no case does that depth exceed two feet six inches. That being the case, I see

no reason for a drainage to encircle the entire ruin. I imagine to encircle the roofed Kiva with a drain leading it to a lower level and then at a later date when the entire ruin is dug out worry about the other Kivas we are apt to find in the Court. Do you think we should make some provision for a drain around the Great Kiva?: We would appreciate any ideas along these lines.

"Another feature in the drainage line is that of each room. On these tests that I mention where we dug along the wall we find that the damage is not in any sense below the level of the floor but above the floor to a height of about 10 to 16 inches. This might mean different things and I would like to have an expression from you. In every case where we sank a test we find that the foundation is of river boulders and I wonder if we might not dig down not over two courses until we come to that type stone and then drain to the center by sloping the floor. Another thing is that walls are much worse on the high walls than on the lower ones That might be explained by the fact that the Sun does not ever shine on the first two feet of the north walls and almost every day on the South and East rooms. Just the way to remedy this feature we will fight out and certainly do the best we can. If you have your Aztec Ruins map I might say, for example, that conditions in rooms 78 and 79 are much worse than in rooms 37 and 41. Other tests bear this idea out very much "

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Faris wrote Engineer Hamilton and in this letter quoted from Earl Morris' comments on the drainage problem:

"In regard to the drainage proposition, considering the depth at which you found water in your outside test pits, I do not think there is any necessity of planning a drain around the entire Ruin at present. It is probable that the roofed Kiva is the deepest thing that we shall ever have to cope with. And if a satisfactory drain can be worked out to take care of it, I believe that is all that is necessary at present. I very much doubt if there will be need of drainage for the Great Kiva. I am not sure at the moment as to how high the floor of it lies above that of the roofed structure, but believe it is a distance of several feet. It might be well, however, just as a safeguard, to dig a pit in the floor of the Great Kiva to see just how wet the earth seems to be there. But in judging the matter take into account how much of it is due to recent

rainfall which is the sort of thing that would be guarded effectively against when the building is roofed. It might not be a bad plan, however, to put at an appropriate place in the line which leads away from the roofed kiva a blocked tee so that if the future should dictate a drain for the Great Kiva it could be connected at that point. Of course I presume that you are planning to provide for surface drainage around the structure, presumably leading into the underground line.

"As to the matter of drainage for each room, frankly I am stumped. For years I have been trying to think out some method the use of which would prevent the disintegration of the walls immediately above the floor level, but I have hit upon nothing that appeals to me in the least. Whatever rain and snow falls into the rooms is bound to dampen the earth beneath them to some extent. I have noticed the condition that you report, namely, that there is no appreciable damage to the walls beneath the floor level, but that there is marked crumbling and exfoliation in the lower courses of the masonry immediately above the ground level, It is there that evaporation takes place. The moisture from below seems to soak up into the stone work and out for a distance of a foot or a foot and a half above the floors and of course during winter time frost acts heavily upon this dampened material. If the wall stones themselves were sufficiently hard one might be able to work cement into the joints and obtain an effective result, but since most of the sandstones disintegrate very readily, I am at a loss what to do. I do not think that the placing of drain pipes would help a very great deal toward attaining the desired end. This is a problem that it seems to me the government engineers should have some idea how to cope with. One possible suggestion occurs to me. It might be that if one were to remove a few inches of the floor earth and put down a tamped layer of oil-filled material, thus to produce a surface comparable to that of our oiled highways, that the water would not soak through it and thus provide a source for the moisture which works upward into the walls. If something of this sort were done, whether it would be enough to put a gravel-filled sump at the center of each chamber, or whether it would be necessary to lead a drain pipe out of each room, I do not feel competent to decide. However, I would be interested to know the opinion of the government engineers in regard to the possible effectiveness of such procedure. You might ask them also if there is any sort of water-proof material that might be painted upon the bases of the walls that would fill the pores sufficiently to prevent either absorption from the surface, or the working to the surface of interior moisture."

(End Of Quotation from Morris)

E.

Comments: R. H. Rose:

Excerpts of these letters of Messrs. Morris and Faris prove that there is a highly important problem in Ground Water Geology at this Monument. I am prompted here to introduce a few ideas on the principles of Ground Water flow. They may at least suggest the exact cause of certain damage noted in the ruins at Aztec.

Let us consider rain falling on an area the soil of which allows water to migrate downward through the spaces between the grains of sand, gravel and other porous formations. Of the total rainfall on the area, there will be considerable quantity carried away as surface flow. Another portion will represent evaporation and the remainder will seep into the surface of the ground. Of this quantity seeping into the ground, its distribution will be as follows:

1. Part will be retained in the upper soil area by capillary attraction. The amount so held in suspension as it were in the surface area will be greatest immediately after rain and diminishes by evaporation constantly. The amount of water in this zone cannot exceed the quantity capillary attraction can hold against the downward pull of gravity. This is the UPPER CAPILLARY FRINGE, OR BELT OF SOIL MOISTURE
2. Below this belt of SOIL MOISTURE immediately below the surface of the ground, comes what may be termed the AERATED ZONE. Because of irregularities in spaces openings and fissures the movement of the water downward is concentrated along the larger openings and although a great amount of water passes through this zone, it is not saturated.

3. The true water table is below the AERATED ZONE. The idea of the Aerated Zone is reflected in the term VADOSE CIRCULATION which is given to this "wandering water" zone. VADOSE WATER may be applied to this water which wanders downward from the Upper Capillary Fringe along lines of easiest flow.

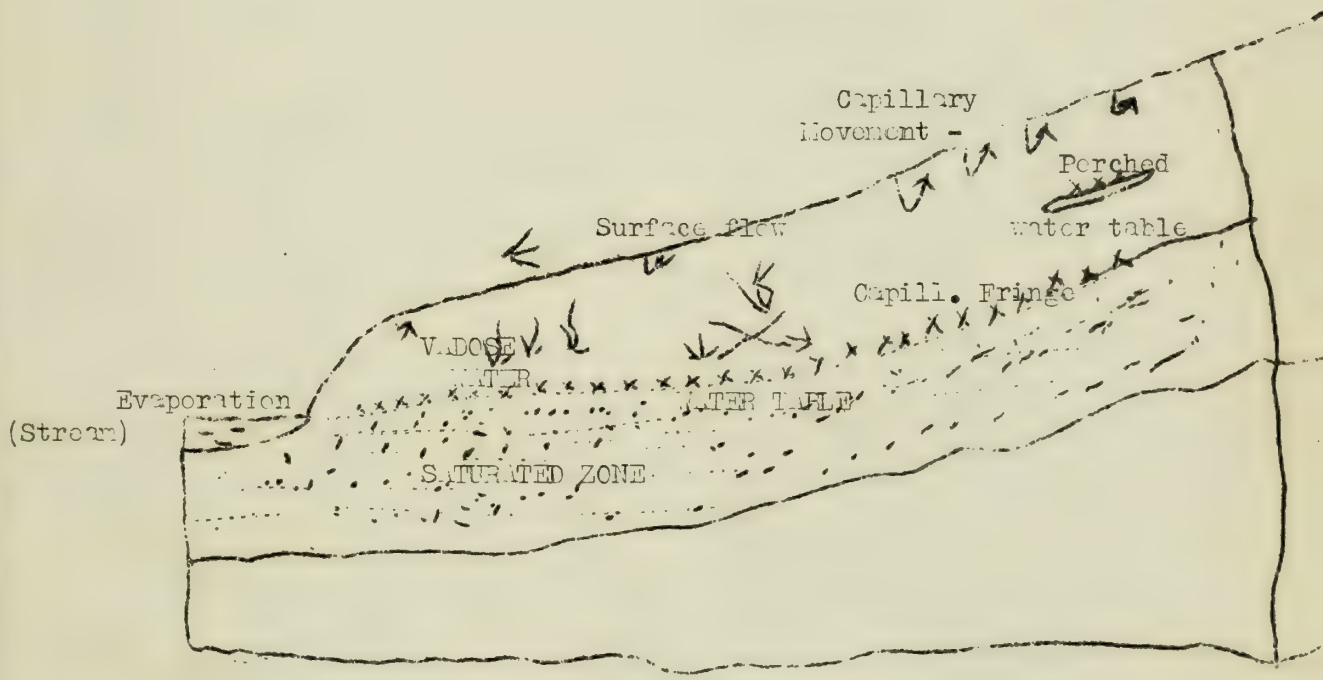
4. Below the Aerated Zone is the SATURATED ZONE. In this zone the spaces between sand grains and gravel are filled to capacity with water. They cannot possibly contain any more. The WATER TABLE is the surface defined by the upper limits of the Saturated Zone.

5. Then there is a capillary fringe above the water table. This may extend as much as 1 to 4 or 5 feet above the the Water Table.
6. The Ground Water Table is a subdued replica of the surface terrain where conditions of soil depth, porosity and other properties are more or less the same throughout.

F.

PRINCIPLES OF GROUND WATER OCCURRENCE

(Vadose movement may be along cracks and joints or along courses of higher sand or gravel porosity, around the grains)



A. The Saturated Zone is a zone of free movement of ground water among the grains and spaces in the sands, gravels and other formations.

B. Where a surface valley intersects the Ground Water Table there may result a stream of some size originating in a seep or spring.

C. The Belt of Soil Moisture is due to capillary attraction which holds some of the percolating waters near the surface of the ground.

D. Vadose or Wandering Water finds its way to the Saturated Zone around grains and along fractures.

E. A moistened zone, the "Water Table Capillary Fringe" extends from a foot to four of five feet above the Water Table.

Relation of Aztec Problem to Ground Waters:

To thoroughly discuss the relation of Aztec's kivas and walls to occurrence of ground water would run into much greater space than is warranted here. However, from the following points the gaps in the discussion can be seen by the reader.

Let us consider the floors of the kivas or of the rooms in the ruins. Here are the possibilities:

1. The kiva may be deep enough that its floor is below the upper limits of the Saturated Zone, or WATER TABLE.

2. The Kiva or room floor may not be as deep as the SATURATED ZONE but yet be as deep as the CAPILLARY FRINGE(between a foot and four or five feet of Ground Water table)

3. The bottom of the Kiva may not even extend into the Zone of the ~~Upper~~ Capillary Fringe, but merely extend into the AERATED ZONE or Zone of Vadose Water Circulation.

4. All room floors or all kiva bottoms , unless extremely shallow, extend through the depth of the UPPER CAPILLARY FRINGE or the ZONE OF SOIL MOISTURE. Remember that this upper zone is Not a zone of free flow and is ~~not~~ a zone of water behavior in accordance with laws of capillary movement. Also we must remember that through capillary attraction the soil tenaceously holds the water in the inter-spaces between grains and very reluctantly gives this water up. In other words, TO EXPECT TO CARRY OFF WATER DUE TO EITHER OF THE TWO CAPILLARY FRINGES BY INSTALLING TILE WILL MEET WITH DISAPPOINTMENT. AS A MATTER OF FACT, IT IS ENTIRELY POSSIBLE THAT A POROUS TILE ITSELF CARRYING WATER WOULD GIVE UP SOME OF ITS FLOW TO THE SOIL THROUGH CAPILLARY ACTION THRU THE TILE ITSELF MERELY MAKING THE MOISTURE CONDITION WORSE RATHER THAN BETTER.

5. Of course, all kivas and other structures penetrate the area of surface flow of water.

Further Interpretation of Above Six Points:

1. As a rule, we are safe in saying that ANY KIVA FLOOR OR OTHER BOTTOMS OF STRUCTURES NOT WATER-TIGHT WILL HAVE STANDING WATER IF THEY ARE ACTUALLY BELOW THE WATER TABLE OR EXTEND INTO THE ZONE OF SATURATION.
   a. When such situation exists, tiling in general can't be resorted to as a solution to the problem for two reasons: (1) Trenching for such tiling would have to be perhaps 8 or 10 feet underground which would be great expense in installation; and (2) unless the tile were some five or six feet below the room floors or the kiva bottoms, such floors and bottoms would still exhibit moisture due to the Water Table Capil. Fringe.

b. Our general conclusion would have to be that tiling for purposes of DEPRESSING THE GROUND WATER TABLE SOME FIVE OR SIX FEET BELOW THE FLOORS OF ROOMS OR KIVAS WHICH THEMSELVES ARE ALREADY SOME TEN OR TWELVE FEET DEEP CANNOT BE SUCCESSFULLY DONE.

c. In cases of where the Ground Water Table is above kiva or room floors, consider the possibility of going to the source of the water percolating into the ground, such as the Canal back of the Aztec Ruin. If this is the water source, then the slope of the water table is from this canal down toward the river. Here, perhaps by placing tile a few feet in depth the Ground Water can be reached. Depressing the Ground Water Table somewhere uphill from where this table pitches beneath the Ruins, will cause a lowering of the whole Water Table Surface by several feet from point of tile to the river. In short, a condition of subdrainage of this sort may be corrected by tiling several hundred yards up the GROUND WATER SLOPE from the kiva or other structure we are desiring to drain.

m 2. Let us consider point two above-that is, a case of where the kiva or room floor doesn't extend into the Saturated Zone but merely into the Water Table CAPILLARY FRINGE. The floors and walls for a few feet above floor will show moisture by this capillary water though the water table is from one to five or six feet below such floors! NO AMOUNT OF TILING WILL REMEDY THIS FLOW UNLESS SUCH TILING PROPERLY PLACED SOMEWHERE UPSLOPE WILL RESULT IN A DEPRESSION OF THE WATER TABLE SUCH THAT EVEN THE UPPER LIMITS OF THE CAPILLARY FRINGE WILL BE THROWN BELOW THE FLOORS OF THE ROOMS OR KIVAS.

a. Sinking tile into the Capillary zone only just wont get anyplace. Again, it should be stated that water running thru a porous tile thru a zone of Capillary action or Aeration will likely GIVE UP SOME OF ITS WATER to the earth itself merely making worse the water problem or moisture conditions.

b. Kivas or rooms may even get water in them because the channels, fractures or other avenues of Vadose Circulation lead to the kivas or rooms. Generally, tile around such rooms or kivas cannot correct this condition because each little stream of water is an independent flow and the water amount of water in the Vadose Zone doesnt obey hydrostatic laws as one unit as does the water in the Saturated Zone.

c. Improving the surface drainage such that there is a SPEEDY RUNOFF giving little or no time for percolation of water into ground will greatly improve kiva or room water due primarily to little streams of Vadose or Wandering water getting in.

d. Correcting against this Vadose Circulation may present the "hardest nut to crack" of all the drainage problems confronted by the Ground Water Geologist. REMEMBER THAT IT MAY BE A LITTLE DIFFICULT TO DETERMINE WHETHER IT IS WATER OF A SATURATED ZONE OR MERELY VADOSE WATER THAT IS CAUSING WATER TO STAND IN THE BOTTOMS OF ROOMS.

3. The third possibility, namely, that of the room floor or kiva bottom extending merely into Vadose or Aerated Zone is discussed in (b), (c) and (d) above.
   a. In general, I'll say (1) improving surface drainage, constructing "curtain walls", cementing or paving ground areas, etc. are possibilities in solving kiva or room water due to Vadose Circulation.
   b. In general, tile will but little improve water due to anything except complete saturation.

4. Lets consider case 4: that is, all rooms or kivas penetrate m the Zone of Soil Moisture or the Upper Capillary Fringe. The walls in rooms and kivas at the Ground Level and below m for possibly 2 to 4 feet will show moisture due to Capillarity. The following facts stand out in this connection:
   a. Will tile correct this condition ? No , except perhaps immediately after exceedingly heavy rains when for a brief time this upper Fringe may be completely saturated. DON'T EXPECT TO IMPROVE THIS CONDITION BY TILING. IT MIGHT BE MADE WORSE IF A POROUS TILE CARRYING WATER RUNS NEAR RUINS WALLS IN THIS UPPER FRINGE ZONE !
   b. This moist condition just below ground level may not be apparent during the Summer because of rapid evaporation but with coming of winter be most apparent. (1) improving surface drainage; (2) construction of curtain walls; (3) protective coatings on walls of ruins themselves- these are some of things that might be resorted to to prevent this moisture of the Soil Moisture Zone.

5. Now for the last: all structures penetrate the surface. This portion of water due to runoff should be made as high as possible, and of course improving surface drainage in usual ways is the answer here. J.

DIAGRAMS ILLUSTRATING SOME OF POINTS DISCUSSED.

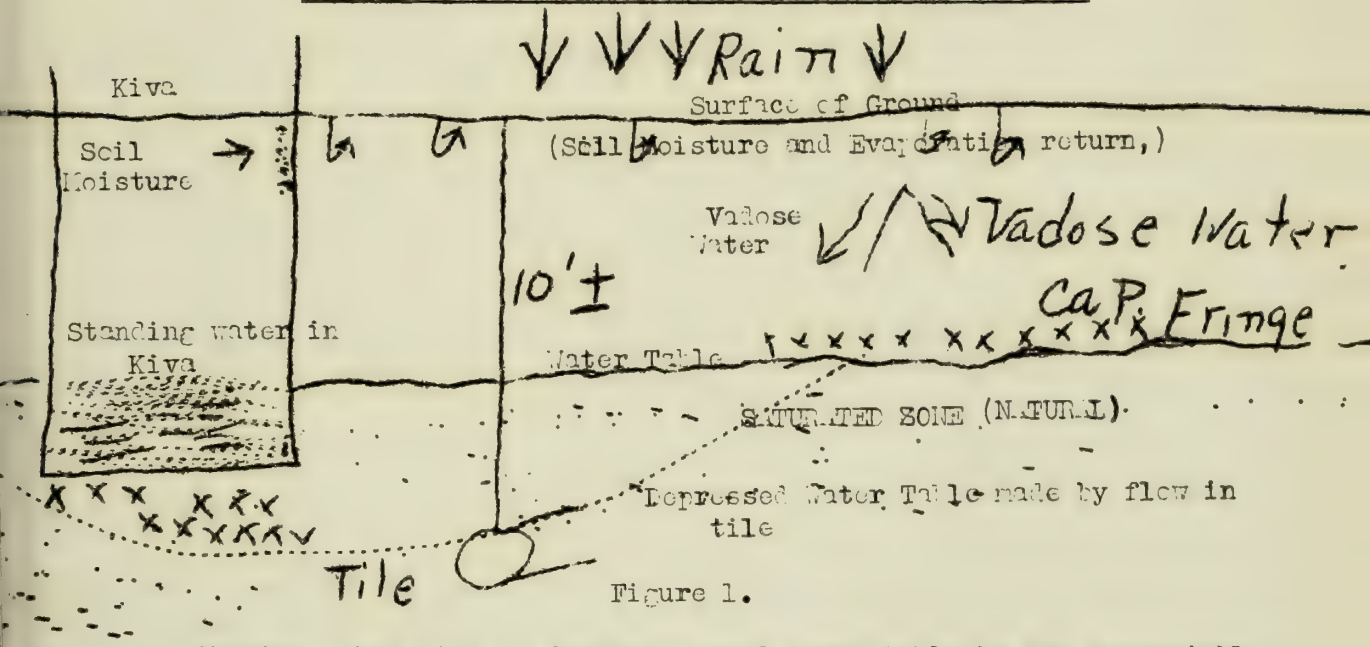


Figure 1.

Showing that tile to depress ground water table by any appreciable amount must be very deep if to do any good. Even with such tile close to ruin, capillary moisture will probably persist on lower walls and floors.

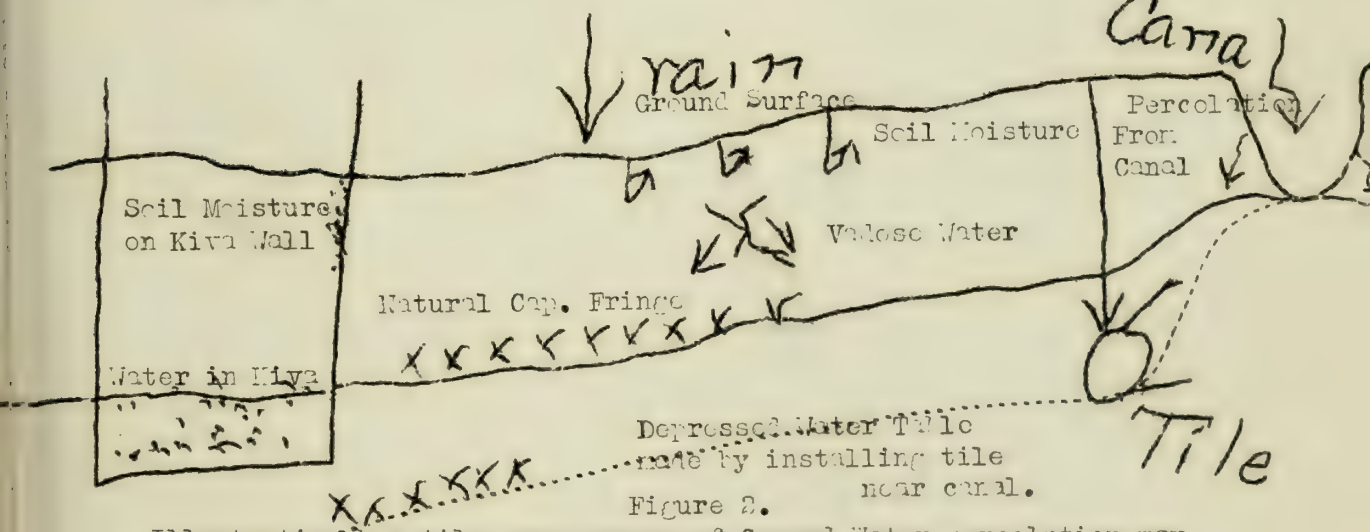


Figure 2.

Illustrating how tile near source of Ground Water percolation may depress ground water table hundreds of yards down slope from where tile is placed. If kiva such tile is installed to protect kiva its floor in saturated zone then tile must be installed so as to get greatest amount of water table depression. This can often be done to depress Water Table Capillary Fringe so low it will come below kiva floor.

K.

FURTHER DIAGRAMS ON TILING

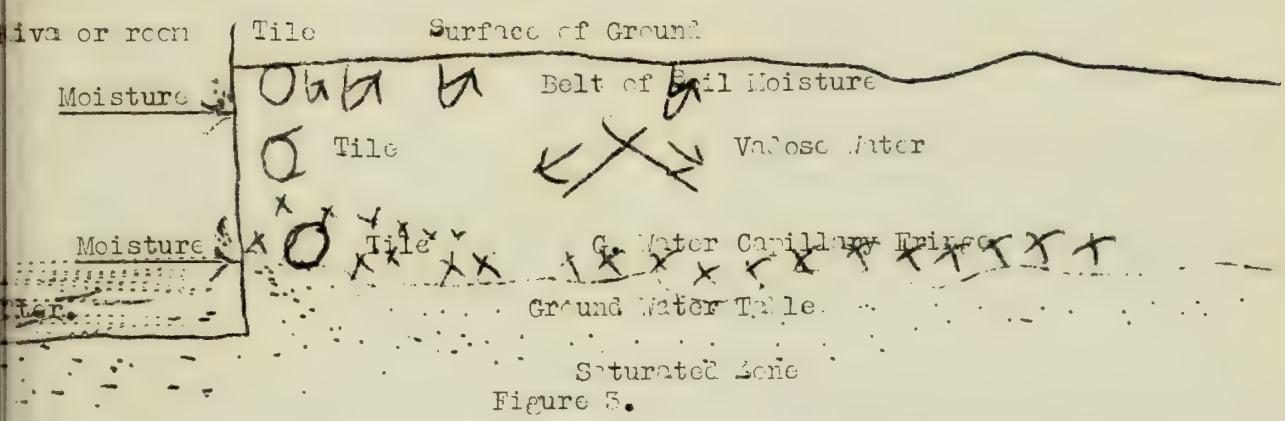


Figure 3.

Diagram showing tiling in (1) Belt of Soil Moisture; (2) Zone of Aeration, or Vadose Circulation; and (3) Ground Water Capillary Fringe. None of these are zones of free flow. Zones (1) and (2) stubbornly cling to their water content and will not give it up to porous tiling. In fact if water flows in porous tile through these two zones, the earth may even rob the porous tile of its water by capillary attraction.

ther Problems:

1. Water-proof curtain walls installed deeper than the Upper Capillary Fringe would largely solve the problem of damage of walls by capillary water immediately above the ground line. It would also solve the problem of moisture on walls of rooms at and just below ground level.

2. Curtain walls wouldn't protect bottoms of walls which extend down into the Ground Water Capillary Fringe Zone. Page K, figure 2 suggests a method of depressing the Ground Water Table so the Water Table and the Capillary Fringe just above it, will drop clear below the bottom of the room or kiva.

3. Endeavor to perfect the surface drainage. The least possible water allowed to percolate into the ground the better it is. Surface stream channels should be as water-tight as can be attained . Too much downward percolation from surface drainage channels might cause a local "HUMP" in the Water Table. If this local rise becomes too high, it might bring the ground water, or at least its Capillary Fringe into the bottom of the rooms or kivas.

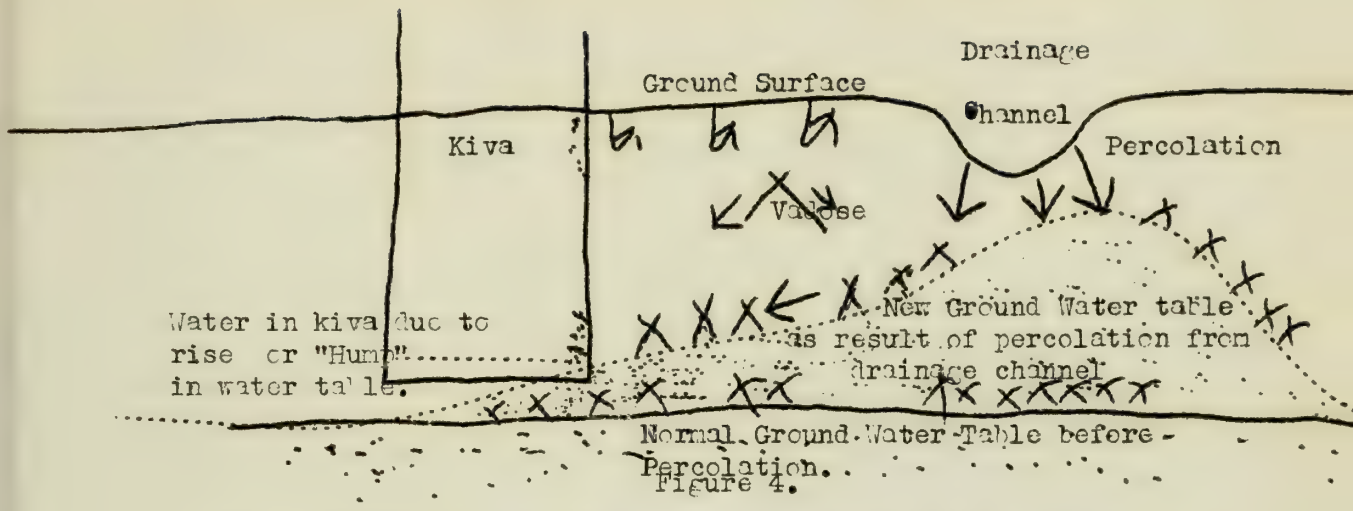


Figure 4.

Percolation must be reduced in surface drainage as low as possible to prevent enough seeping water from reaching Ground Water Table as will build the "HUMP". Water-proof surface channels would be desirable.

Thus, if too much percolation of water occurs from sluggish surface channel, the Ground Water Table might be raised high enough as shown in the illustration for water to seep into the Kiva. Even tho the Saturated zone is raised just a little, the Capillary Fringe might be raised high enough to begin to moisten the Kiva floors and lower wall portions.

(Page L, Figure 3)
It should be mentioned here that the Vadose Zone is not a zone of saturation and it is this water that it is hardest to control if wet blotches here and there on dry walls show its presence. Improvement of surface drainage as perfectly as possible is the first place to start. If curtain walls don't have to go unreasonably deep, some protection against Vadose Water may be thus provided. In cases crushed rock in a trench beside a water proof curtain wall, and loose joijnted, non-porous tile might be a real help.

This discussion is presented here in an attempt to explain the exact cause of certain moisture conditions in ruins in the light of Ground Water principles. The nature of the moisture in each case must be known before the correct remedy can be prescribed. Tile will not extract water from earthen material wet by virtue of Capillary Water only; as a matter of fact, such soil moist by capillary water may, by capillary attraction, even "rob" a porous tile of some of the water flowing through it.

Thus, it appears that Curtain walls(water-proof), tile, rock-filled trenches and the like would have to be varied greatly to solve the different moisture conditions arising in kivas and other ruins. Perhaps the discussion above will aid somewhat is suggesting remedial measures for different sets of moisture conditions.

(R.H.R.

Tom Charles sends us a letter which was written to him by Dr. H. L. Kent, President of New Mexico State College. We quote parts of the letter here:

"....Saturday evening late Dr. O. F. Cook of the Office of Crop Adaptations and Acclimatization, was in my office discussing various projects in which he is interested. .....He said he thought it would be a wonderful thing if some provision could be made at White Sands National Monument to use some men during the winter, for a planting of many varieties of cacti and other plants peculiar to the Southwest. His idea is that if this could be done and you could find an area inside of the Sands which is not covered by the sands and into which a road might be constructed, that in this area the government should attempt to make a sort of desert arboretum with cacti and other rather peculiar desert plants planted therein and each species labeled giving its name, its natural habitat and perhaps any other interesting data about it. Of course you can appreciate how much valuable and interesting information might be accumulated about some of these plants. For example, I have known the socalled "Mormon Tea" almost ever since I have been down here. I collected some of it to send to Clarence in England and he told me he did not care to have the material sent as they did not want to use anything except what the students themselves collected. When he came home this summer I talked with him about it and much to my surprise he told me this plant is a gymnosperm. That is, it belongs to the very great group the same as pines, spruces, junipers, etc. Of course that might not mean much to one who had had no botany but even with the little botany I have had that was exceedingly interesting. It is this kind of information which Dr. Cook had in mind when he suggested a desert arboretum as a part of White Sands National Monument.

"I am passing this proposal on to you for whatever it may be worth."
.....

****

This suggestion of Dr. Cook's which Dr. Kent has sent to Tom is packed full of interest. You know Tom over there has some little white mice, and certain other peculiar forms of life that have peculiarly adapted themselves to that pure white environment. A question of whether or not introducing an arboretum here and there in the area would disturb this strange condition of animal and plant life arises here. Also there is the problem of introducing some forms of plant life not exactly native of the White Sands locality. This idea carried out with reference to everything that could be considered native to any given locality would be a worthy project. This is a problem for both the Landscape and Naturalists division to consider.

N

The Boss fishes a letter out of the mails coming from Walt Attwell at Bandelier. He asks assistance in solving some domestic problems. Here's his story:

Dear Boss: Mrs. Evelyn Frey of the Frijoles Ranch, P. O. Box 1321 Santa Fe, N. M. has asked me to try to get you to send her a copy of your Southwestern Monuments monthly report.

She has borrowed the Rogers' ever since they have been here and now she has asked for mine. So if you can add one more to your collossal list, I know that the Frey's will appreciate it.

Now dont think that every silver cloud does nothave a dark lining because I have a complaint to make against it. A few weeks ago my mail from home was seriously delayed and Bunnie comes out with an excuse that is water tight for not writing. I am sending you the first page of her letter so you can see how she has neglected me just to do like Mr. Albright used to do and that was "Read the S. W. Report first". So Boss, in the future please send it to her just the day after she writes me instead of the day before." Walt. (In the letter enclosed, Mrs Attwell blames me for her neglect to write Walt on the usual time, and the Report caused it all).

This completes about all the Boss left with notations on to include in this Supplement, and some things he didn't leave.

****

Civil Works Programs have been approved. The brief period of work prescribed makes it necessary to push our end of organizing the work with utmost speed.

****

Please see Supplement of Report for last Month, last page, for letter Heaton wrote Mrs. Udal to which the letter of Mrs. Udal in this Supplement is an answer. ****

Before another Supplement appears, Christmas will have rolled around. Therefore now is the proper time to both officially and personally extend best Christmas Wishes to our Park Service people both in Washington and in the Southwestern Monuments field. Thanksgiving has passed quietly and from reports coming in, Turkey Soup as a part of the daily menu is beginning to disappear:-a sure sign Christmas is just around the corner !

Cordially,

R.H.Rose. The Boss

R.H.R

0

A last word from the Boss.

Dear Chief:

Hugh and I drove 420 miles yesterday coming in off a field trip, and caught the monthly report still on the press, so I will put in a last word; not that what I have read of the report is not all right, but I just can't pass up the chance to put my oar in.

We have just been over to visit Tom Charles and line up a road and get organized to start work. Chuck Richey and Ruth came down from Platt and Walt and Lyle Bennett came from Bandelier and Hugh and I drove 420 miles Monday and climed over Tom's Gyp outfit Tuesday and drove home yesterday. We all held two long Bull Sessions, which go by the name of conferences in the other Superintendent's reports; Monday night and Tuesday night, covering considerable territory and really clearing a good deal of ground.

We came pretty near having a rain over there Tuesday and I would have given good money if he had, but Tom's gods were kind to him and took the clouds back again after putting up a lot of them.

We found the percentage of error on a couple of our boys too. Hugh looked into a couple of abandoned wells out at the White Sands and reported that night that they were forty feet deep. Tom had told us water was only about five feet deep at that point and when we called him on it, he said those wells weren't but ten feet to water. Next morning when we all went to them and checked up on them we found the water to be at a depth of twenty feet. Walt figured that Hugh was all right, because there were two wells, which would make forty feet! These high-ball Engineers can always make the figures fit the facts; did you ever notice that, Chief? I might add right here, that Tom's error is a fluctuating one; you might think from the above that you would have to multiply all his figures by four, but if you did that on his attendance record, you would have to divide the result by something between nine and fifteen.

- - - - - - - - - - - - -

In drifting around, I find that the popular idea in Arizona and New Mexico is to distribute the Civil Works money on the basis that any work that comes out of it, is net profit. I'd like to rise to remark that in our end of the Civil Works expenditures we are expecting pretty close to the usual dollar and a quarter of returns for every dollar invested. I wish every man in the Southwestern Monuments would avoid this 'come easy, go easy' philosophy. When these times pass, as they are sure to pass, make no mistake about that, there is going to be a long dry spell in the construction field among our Monuments and you will be looking back with regret on any dollar you waste now. It is true that in the process of gearing an organization which has been expending about $60,000 per year up to an expenditure of nearly $100,000 per month, there is going to be some end-shake; like Jackson of Montezuma, we have all made one mistake in our lives, another one might be excused, but anything like wilful waste will not be excused, and you'd better not be caught off your base in this matter when the inspectors

come around, and if you think these CWA and ECW expenditures are not going to be aired again and again in the next couple of years, you don't know the past history of the United States.

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Bob left out a most important report which I will incorporate here; Bunnie Attwell really wrote: "I have been delayed answering your letter all on account of the Southwestern Monuments' Monthly Report. You see it arrived yesterday morning and, of course, I had to stop all work until I had read it through, cover to cover, and when I started the letter this morning, I lost another couple of hours reading it again. So you see it is all the fault of the Boss' report. This same report a year ago told about our trip through the Southwestern Monuments when he had that wonderful trip with the Boss, and what memories I have of it!. I enjoyed it more than any trip before or since. It surely was one of the happiest experiences of my life and it will always be a delight to think about it."

That's the way we sell a customer on the Southwestern Monuments, Chief, and when we sell them, they stay sold, too.

- - - - - - - - - - - - - - - -

This incursion into the realm of fancy, which we call our Monthly Report, is about to reach the deadline as to its subscription list. It is going to be too much of a problem if we let it go over a hundred copies. However, we want to assure Mrs. Frey that she falls within the 100 mark, and will get her copy.

- - - - - - - - - - - - - - - -

We are moved to remark that in all this rush and jam of ECW and CWA, there ought to be no let-down in the quality of service which is being delivered to the visitor of the current day. Don't forget that Mr. and Mrs. Doe may never come this way again and, regardless of how mad you may be at something we have or have not written you out of this office, remember that your other Boss, Mr. and Mrs. Doe, are not to suffer because of it; they are entitled to the usual brand of service in unusual times.

- - - - - - - - - - - - - - - -

We have increased the headquarters staff by a trifle of 130 pounds, called "Brownie". She is a sister-in-law of the Park Service, being a sister of Mrs. White Mountain Smith, and Hugh says she is going to make good in his office. You will probably hear more and more of her as the work piles up on us, and, since she is the official stenographer and assistant bookkeeper, you Custodians and Landscapers and 'High-ball Walt' can put all mailing errors both of omission and commission on her head and the rest of us won't mind.

- - - - - - - - - - - - - - - -

Chief, the real high spot of the month was a couple of hours visit with Mr. Albright. He dropped in here on his way from Los Angeles to Carlsbad, and it was certainly fine to see him again and gossip about one thing and another

and I want to pass it on to the fellows who make up the monthly report that he said he always ready our Southwestern Monuments Report and that his heart was with us down here on the front line, for we are at about that stage of pioneering that the whole Service was when he came with us in '16. He sent his regards to all the Southwestern folks.

- - - - - - - - - - - - - - -

Which brings us down to the final end of this November report. I wanted to get something in the way of an expression out of the Chief Clerk into this report, but he has three days of work piled up on his desk, and he is likely to woof! if I go in and say anything, so we will let that pass.

Cordially,

The Boss

NRA

We Do Our Part.

Maximum hours,
70 per week.

R

The Southwestern Monuments Monthly Report for December, 1933

Contents

THE SUPPLEMENT.

UNITED STATES
DEPARTMENT OF THE INTERIOR
OFFICE OF NATIONAL PARKS, BUILDINGS AND RESERVATIONS
SOUTHWESTERN MONUMENTS

Januray 1, 1934.

The Director,
National Parks, Buildings
and Reservations,
Washington, D. C.

Dear Mr. Director:

Another month has slipped around and again we gather the reports from the Southwestern Monuments and present them for your inspection.

You will note that the weather has been fine throughout the district and it was fortunate for us that it was so because with an early winter we would have been terribly hampered in getting our Civil Works programs under way and in some places it would have been impossible. With the desert gods in our favor we are rounding into action and, when I consider the especial handicaps under which we labor in our particular field of the Park Service work, I am rather surprised that we have done as much and done it as well as we have in the short time that has elapsed since we have been given the word to go.

We will probably not be able to expend all the money we have set up by the time the dead line of February 15 strikes us, and I am not worrying about that so much as I am that we shall show actual results for the portion we do expend. As I told you last month, in expanding from a normal expenditure of $5,000 per month to one of $100,000 per month we are likely to have an end-shake here and there, but we are corking the holes as we find them and I am really pleased with the efficiency the organization is showing.

I think the individual reports from the various monuments will prove very interesting to you and the other readers of this report this month and you must remember that most of these men have stopped in the middle of a mountain of new work to get these reports to us on time. They are rising to their increase of toil and troubles in a mighty fine way.

EL MORRO NATIONAL MONUMENT. E.Z. Vogt, Custodian. Ramah, New Mexico.

Mr. Vogt, being the first on the ground, is given the order of preference this month and leads the reports:

"The past month has been a notable one around the historic old rock of El Morro. Things have happened which one familiar with these

silent places would never have dreamed could happen.

"The Civil Works program for this Monument got started off with a layout of greatly needed improvements and equally needed employment.

"I wish there was a way to get the word through to the President himself so that he would know what a wonderful far reaching effect this work has had on this whole country in western New Mexico. Before the beginning of this work there was so much idleness, dark doubt, want and desperate living, struggles which kept many a person awake through the night. When the first word came of the proposed program, along about the middle of November, many took hope but few believed it until they were actually put on the job.

"Now, by careful selection of heads of families whom we knew to be hard pressed, the whole region has taken on a new life. Not only have they been benefitted but the money coming in through their labor on this Monument, but it goes on its way blessing all the community. The cow man who has plenty of cattle but cannot sell his steers finds here an outlet for an occasional steer butchered and sold in quarters to the workers; the poor widow whose chickens produce unsalable eggs, finds a market for her eggs; the stores all begin to move their stocks and collect their accounts; children get shoes, school books, clothes, toys and Christmas candy. Everybody is happy and full of life and clicking along like a wound up toy planning for the future. Those who read and observe the progress of affairs marvel at the comprehensive plan of the President, the sustained determination and the great courage with which he pushes things over the top. That everyone is behind him to the man goes without saying. We pray for the success of his program and for his personal welfare and good health.

"Mr. J. B. Hamilton, of the Engineers, came in here with Mrs. Hamilton on December 7th and started the work with D.B. Clark, a competent local engineer from Gallup. Two chain men assisted Mr. Clark in surveying the boundary of our 240 acre Monument. Considerable difficulty was encountered in locating the official corner rocks of the section; in fact even with the official notes which Mr. Hamilton brought back with him from Santa Fe there was not sufficient information to enable Mr. Clark to satisfy himself about our lines. We have written to the Field Division of the General Land Office for the notes on other cornering sections and these may clarify the situation.

"Mr. Hamilton and I looked over the entire Monument carefully viewing the problems of preservation, erosion control, trails, tourist control, etc., but made no hard and fast decisions until we were joined by Mr. C. A. Richey who came out with Mr. Hamilton on the 11th.

"Meantime, our employees, secured mostly through the County Re-employment Office, began to arrive in wagons with camp outfits, some on horseback and a few in old cars and trucks without licenses, for our ranchmen have been so poor that out here in the sticks they have been unable to

buy licenses.

"Each group went to work fixing its camp, some with tents in well chosen tree shelter, others who had no tents under the friendly shelter of the overhanging cliff way to the south side of our grounds. Fires were started while shelter was devised and others started to melt snow in buckets for drinking and cooking water. In a short time the fires had burned down to coals upon which they cooked the meat, potatoes and beans and made biscuit and tortillas in dutch ovens. By night all were very comfortable and happy around their fires. Each man brought his ample bed rolled in cowboy bed sheets or tarps. All sleep on the ground on piles of pine needles or sheep pelts. None have cots or beds and are accustomed to go to work in cow camps, sheep camps or lumber mills in just that way. Our entire crew is made up of men of the westwho have worked with live stock or hunted gold through lonely regions or tried to eke out a living on a section of homesteaded land.

"I personally am very glad of the type of man we have in this crew since they are go-getters for work, happy under any condition and able to maintain themselves against all weather conditions, be it a two foot fall of snow, hail, rain or sunshine. Our weather has been for the most part just a lovely parade of perfect days followed by clear, snappy nights with millions of stars coming down close to us. No disturbance except now and then a plane of the Transcontinental-Western Air Line upon whose air route El Morro is located, but the planes fly 'High, wide and handsome' through here and do not come low except occasionally.

"Our first work was to get the road approaching the Monument in shape so that we could get in and out. The wash of rains for several years with no work at all done by the county or state had left our Ramah-El Morro stretch of eleven miles so bad that we feared a snow might fall, cover up the holes and high centers and thus leave a road which would be difficult to follow with light cars and dangerous for laden trucks which readily get hung up in such places under our usual winter conditions. In four days with a crew of about ten men we were able to put the road in condition so that the distance can be driven without shifting gears, though we still have some of the bumps with us.

"Our clerk, Lon. P. Fletcher, arrived on the 14th and has taken hold with good initiative, loyal cooperation and painstaking care as regards payrolls, records and filing.

"After re-visiting Grants, where our re-employment committee lives, we managed to get lined up in such a way that we soon had a well selected crew of 30 men, which has now been brought up to 40, and we still have 18 to go.

"Under the guidance of Mr. Hamilton and Mr. Richey we planned the check dams in the three deep arroyos which had washed into our terrain to the south of the cliff.

"It took Mr. Richey and Mr. Hamilton and myself a long time to look over the possibilities of erecting a headquarters building. The mere location of it was a problem which took a great deal of thought. In the discussions which went on between Mr. Richey and Mr. Hamilton I learned a great deal about the many different angles which entered into such a problem. I have tried to be alert so as to keep up with some of the 45 high-power men one comes in contact with through the Park Service but I often find myself standing with open mouthed bewilderment when I try to follow their thought.

"It now seems that the best location for such a building is in front of the deep rincon on the north side of the Monument west of the inscriptions and pretty well up against the timber. With a proposed spur road coming in from the highway north of our line, Mr. Richey and Mr. Hamilton thought this location the best from every point of view. It gives us one man control of visitors with the greatest chance of showing them the complete circle of inscriptions, pictographs and both ruins.

"The trail to the ruins on top of the great mesa was mapped out and Mr. Clark surveyed and staked it upon which men went to work right away. By commencing on the shady side of the north slope we hope to finish the trail before we have the storms which we are soon due to have, thus leaving the sunny side for the more inclement weather. The north trail is now about half completed in point of time needed to do the work and about three-fourths of the distance. A great deal of chiselling work and heavy work with bar and pick is necessary to get a good grade and adequate drainage.

"We have found a good place to quarry rock but will not begin this work until after the first of the year as we have several days work on the hardest trail. The check dam work is now finished as far as it is laid out.

"Fifteen check dams of a very substantial nature were built. To effect a saving in both money and time we used the old cedar posts in our fence, now some fifteen years old, for retaining walls above and below. The old wire of the fence we used for tying these timbers together, then with great fills of dirt, lava rock, and brush, the dams were constructed of sufficient width, height and strength to stop any floods the short run-off will ever put onto them. In doing this work we secured all of our materials in the way of brush and rock off the Monument and in hauling them we tried to get it done with the minimum amount of damage to our wonderful mat of gramma sod.

Two of the men were put to work to clear out the vacant portion of the ranger cabin which Ranger Peterson used for his garage. The sacks of cement were brought for storage to my house and we found dry places for the rest of the material. By the time that was done one of the men arrived with the 1,500 feet of lumber brought from a saw mill 70 miles away. Immediately the office was started, followed by the blacksmith shop next to it. So we now have the cabin, the office and the shop all in a row

and all in use. We next made a drawing table for our engineer and a table for our clerk with cubby holes and filing places. Not even a chair has been purchased. Our versatile blacksmith made the door hinges for his shop and is now busy fashioning rock chisels, sharpening picks, bars, and getting all tools in most efficient shape for finishing the trail and quarrying the rock.

"In the way of tools, we have insisted from the first that all men coming to work would have to bring axes, picks, bars, hammers shovels and spades and be prepared to furnish scrapers, chains and other tools which they owned and which would help us keep all the money possible for wages. In this way we feel that we have saved a good amount of money, though we found that we would have to buy rock sledges, heavy awls, a few wedges, tool steel and handles. I do not think that our tools will run over $75 for the entire program of work since so much has been furnished by the men.

"Owing to delay in arrival of blank checks at headquarters, our pay checks did not come and in the emergency we managed to borrow the monay for paying off the men from one of the Gallup banks. I took in the pay roll and my clerk got back just as we were breaking up the work for the holidays. Our men live from two to eighty miles from their work, all camp on the job, so that in view of the approach of Christmas and the suffering some of the families have been through I thought I was justified in getting the money to them so they and their families would not be disappointed.

"All camp material, tools, and even the ink, which might freeze, have now been carefully stored with one man on the job to watch over every thing while the balance of the men have left for their homes. All were in fine fettle when they left, exceedingly glad to be able to work again and genuinely interested in shaping up El Morro so that it will be more attractive and more accessable to the great American public. Men will be back to work on January 1 and will spend that day getting their camps set up, food simmering, and be ready to hit the ball on the second of the month.

"We have requisitioned the balance of our forces leaving open the places for the archaeological party you wrote us about. We look forward to the arrival of this group as well as for the return of Mr. Richey who will be back with plans and maps for further work. Mr. Hamilton visited us again on the 21st in order to keep us from going too far astray in our work. Together we drove around to the west side of our formation and entered the box canyon, coming well up with the car until it got so rough and wild that we had to go the considerable distance still remaining in the box on foot.

"It had been some time since I was up there and I had forgotten how really wild and unspoiled it was. It is so sylvian, so secretive and so beautiful that in discussing the proposed fencing on our west boundary we fell to wondering if we should leave a gate to the enclosure. Perhaps

it would be all right to leave a gate with a heavy chain and lock on it. Thus we could reserve the key for only the appreciative few, the students, or the honey moon parties who are wont to sleep in caves and in sheltering arms of the canyon, - - there's plenty to think about there.

"Some erosion and so much dead timber at places that some of it should be cleared out. Great pines, forced down by the heavy fall of snow in November of '31 add nothing to the landscape though some of the dead standing pines might be left. The erosion in the canyon is nothing serious. We looked up to where the prehistoric trail comes down from the south rim, but it was covered with a light snow and could not be spotted with the eye.

"The Navajo family living down that same canyon looked with wonder at the surveying, the cars, the bustle of the men and seemed uncertain what it was all about. I intend to visit them soon and explain our activity.

"Mrs. Vogt sent a package of candy out to each of the men on the crew before they left for their homes.

"We are going to send you some pictures of the trail work, our Civil Works headquarters, the erosion work and the camps so that you may see what we are doing. We hope they will give you a desire to visit us and that you will be coming over soon to give us the once over.

"With the greetings of the season to you and yours and the entire personnel of the Park Service as well as for the men who are a short time in our employ, I am, sincerely yours,

E. Z. Vogt."

"P.S. I forgot to tell you that I had a fine visit with Mr. Albright who spent several days at Santa Fe in the early part of the month. He seemed more carefree than in the old days when he was carrying so much responsibility and is very happy in his position with the U.S. Potash Company.

"During the holidays I am planning to get up the map and description of the Ice Cave region some 20 miles east of El Morro. Many people think that this should be included in our Monument. I am anxious at least to set forth the data I have gathered so that it will get proper consideration."

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(I might interpolate a paragraph here, Chief, and say that the Pictures which Eazy mentions in his report came through in good shape and give one a mighty good idea of what he is doing. It has been more years than I care to recall since you and I visited El Morro in that old Dodge of Bill Turner's. Why not plan to drop off a day in Gallup when you are in this country next summer and have a look at the place again? You will find it hasn't lost any of its original charm because of the work the boys are doing there this winter. Think this over, won't you?)

AZTEC RUINS NATIONAL MONUMENT. Johnwill Faris, Custodian, Aztec New Mexico.

Johnwill turns up this month with a very good report as follows:

"Dear Boss:

Visitors for the month totalled only 88. The weather has been ideal and I have no reason to offer for the small number of visitors. We have, however, been very busy without any visitors and even though few do come they have been given every consideration and we appreciate the lull in this line. The early part of the month was spent on Public Works projects and the work under that head progressed with as satisfactory results as could be desired. On December 6th our entire Public Works crew was shifted to the new Civil Works program and of course we are working under that head at the present time.

"Your new set-up of Archaeological Reconnaissance work under date of December 15th has been completed with Oscar Tatman foreman of that division. His aides have been selected with every care and both yourself and Bob Rose have our assurance of the fact that this work will progress with every care and Mr. Tatman will personally see to its being exact from every standpoint. Mr. Tatman reports somewhat as follows: "My work has been under Project No.4, or General Clean-up. The ruin walls on the East, North, and West have been practically cleared of debris and this work has progressed much more rapidly than we normally could expect. The building stone was saved and the dirt is taken to washes and low spots for proper levelling and landscaping. In the court of the ruin all debris has been removed from around the Great Kiva and other stones and refuse carried out and disposed of as indicated above. The stone has been sorted into three classes: refuse, rough stone and facing stone. Refuse or disintegrated stone is discarded, the rough stones and facing stones are saved for ruins repairs. Some two thousand nine hundred wagon loads of earth have been hauled away to date."

"Mr. Thompson, my other foreman, reports as follows: 'Project No.1 is well under way and by the end of next week it will be practically complete. This project was the removal of a barn from the Monument. Little difficulty was encountered in bailing the hay and not nearly the trouble we expected was encountered in tearing down the old barn. While many of the boards will have to be replaced, the percentage is small in comparison which what we had expected. Project No.2 has consisted primarily in the entire removal of all interior fences and it remains only for the San Francisco Office to give us approval on the type of fence which we are to erect on the boundary of the Monument. Until this approval is received we cannot complete the project. In this connection we are telegraphing them in hopes of getting complete authorization for contracting this fence by the first of next week.'

"Project No.3, Mr. Thompson reports, is probably his greatest problem. This is levelling on which frozen ground has been the greatest draw back to date. In the early mornings it is practically impossible to do any plowing and luckily the late afternoon makes it possible to plow some and this earth is worked the morning of the following day. Mr. Berg and Mr.

Bell are assisting Thompson in the grades, cuts, fills, etc. and the worst of the dirt work will be finished in the next two or three days. Tuesday we hope to start on the curb around the island in the parking area. I might add that it is quite unusual to be able to plow at all this time of the year and we are indeed fortunate to have completed plowing almost the entire monument and of course getting the benefit of the winter freezes and thaws.

"Project No.4 of course takes in the entire Monument. Mr. Thompson's work in this connection has consisted primarily in cleaning away all dead brush, leaves, sticks, and other trash; raking various areas and the debris has been disposed with rusty and useless wire, in numerous washes for erosion control. Mr. Thompson mentions that Tom Marcott has been his chief aide and he finds his work very satisfactory. He adds a word for his men, saying: 'I find almost to the man they are a very willing crew and as for Oscar Tatman, it is a pleasure to work with him.'

"Mr. Berg has been in charge of our survey work and he gives us the following report: On project 1 a new barn location was made on the Abrams property. It was located east and west with the shed to the south on a site designated by Oran Abrams. Cross sections were taken in calculating the yardage moved in levelling for the building.

"In surveying the boundary for the new fence, angle points were dug in the boundary for the purpose of finding permanent markers. Only one was located. The old fence lines appear to be only approximations of the actual boundary. Early in the month a preliminary line was set for the north boundary to make a plowing line for clearing up areas in that locality.

"Two locations were made in attempting to fit the parking area of the Master Plan on the ground. The advice of both Mr. Richey and Mr. Hamilton was followed in the final location. Mr. Berg has given us a location map of this parking area which I am including with this report. Stakes were set, hubs were offset and elevations set to the nearest hundredth, vertical curves were set around the curb on both walks and islands.

"On project 4 Mr. Berg set grade stakes in the picnic area, relocated a marker disturbed by plowing, and checked levels in every possible way.

"This more or less completes the reports from my various men and we will now deal in generalities.

"Under date of December 15th we have a very pleasant letter from Governor Hockenhull thanking us for our cooperation offered in his program of advancing the various state attractions.

"To fill one of the positions in the archaeological Reconnaissance party it was possible to fall back on one of our loyal friends. A University professor who had visited our ruins last year was contacted and he

personally arranged for a Mr. John B. Smith, graduate of the University of Oklahoma and taking a special course at the University of New Mexico, to do our drafting. It is certainly a pleasure to know that the Monument has persons who are willing to go out of their way to help us when help is most needed. In this connsction I would like to add the fact that the San Francisco Office has certainly cooperated in every way possible. Mr. Kittredge has personally considered our problems in detail and with his efficient assistant, Mr. J. B. Hamilton, we have no worry from the standpoint of engineering. Tom Vint, as busy as we know he is in Washington, has considered several of our problems and we have letters to this end.

"Under date of December 12th you refer to a change of set-up that I requested as probably not being logical. Had I been functioning properly I would have changed this request for after all our original set-up is probably better fitted to our needs than my revised set-up would have been.

"Confirming our telephone conversation, bids were gotten out on Standard Form 33 for 1,700 sacks of quick setting cement. We hope to have delivery on this order not later than January 6th and the entire wall and curb will be a realty shortly afterward. I mentioned the fact that city paving was to be contracted December 28th and we sincerely hope this will prove a decided advantage in the laying of our parking area since it is probable that proper equipment can be rented which would normally be almost impossible to obtain.

"In closing, let me say that we appreciate the cooperation and help we are getting from your office. Without this, our entire program would be absolutely impossible. Please thank each member of your staff for the various members of mine.

Cordially,
Johnwill Faris."

"P.S. Boss, this report goes out at 11.20 p.m. and my new girl who has joined us since my regular stenographer joined the archaeological party, did not kick one bit. We are having a great time and are enjoying every one of the 14 to 16 hours a day of it. You know my typewriter and its period so don't blame the girl as this is her first time using it."

Johnwill does very well, Chief, to mention that willingness of the crew, from top to bottom, to hit the ball. I have noticed it all through this Civil Works program in this district and have been a little puzzled to account for it. It is more than the simple matter of being glad to have the work. The best I have been able to figure out of it is that, while nobody will put it into so many words, there is a feeling that the Country is in a hole and the President has done such a thorough job of taking hold of the situation on his end that the least we can do out here in the field is show him we are for him from soda to hock and we are not just rooting from the side lines but are willing to get in and hold their end up. At any rate, these gangs on our Park Service jobs are really hitting the ball instead of just killing time with a pick and shovel.

WHITE SANDS NATIONAL MONUMENT, Tom Charles, Custodian, Alamogordo, N. Mexico.

Just because he got in early with his report and to keep him from having to take page 13 again, we are going to give Tom space right here after Aztec. Here is his report:

"Dear Boss:

What a riot! Who said there 'ain't no Santa Claus'? This White Sands infant was evidently unexpected. It was born into the official family without a rag of appropriation. We are probably indebted to the 'salubrious climate and delightful atmosphere' of this Valley for the child's existence to toddling age. On account of the kid's extreme beauty a rich uncle has now endowed it with a small fortune. No wonder the family gathered in to see it this month. Dad Pinkley and a host of good looking brothers and sisters swooped down upon us with plans and specifications for dressing the youngster up. You should have seen those kin-folk! This is a pretty baby if we do say so as shouldn't. Chuck seemed to want to do his best to put on a curl here and Walt to add a curve there. The 'nominal Custodian' had never seen any of these brass collars before. No wonder we were excited when we drew all the big guns at once. There was the boss, Chuck and Ruth, Walt, Bennett and Hugh Miller. About the same day we had word that a new daughter-in-law had been inveigled into the Charles family by the B.P.R. member of the group of four boys. All this is why the 'Nominal Custodian' forgot where he parked his car one day and his judgment was a little warped at times as to deep well measurements, etc.

"Here are some impressions:

Miller:- 'Wait a minute! What I want to know is; where you going to get the money?'

Chuck:- 'I'll look with disfavor -'

Walt:- 'Yes, that was a pretty bridge - a rich manure color!'

Bennett:- '- - - - - - - - - - - - - - - -!'

The Boss:- 'Gentlemen; are we all agreed?'

"Embarrassments:

Seems like the Boss has an uncanny way of finding the weak spots. For instance, he insisted on putting the new road out to Miracle Point and the Giant Tracks and I had to admit that they are not even on the Monument! Neither could I side track Chuck Richey on the matter of the Red Lakes. He asked more questions about those lakes than the oldest settlers in that section could answer. I had to admit that 10% covered my knowledge in the matter and 90% was about what I didn't know.

'Another embarrassing moment was when Walt, skimming over the Sands at about 60 miles per hour, would yell: 'Is there a hill in front of us, Tom?' How could I know if there was a hill? The gentlemen should have had a periscope; without it, good breaks were all that saved us.

"Water.

"Two feet of good water in a six foot hole. That is the report of Prof. Botkin, of the State College, on our test holes for water. The good water is within a half mile of the proposed entrance to the Sands.

The water is a little hard but that is caused almost entirely by lime.

'The Count.

"It's uncertain. More uncertain, I believe, since I heard the Boss' remarks on revamping of the count at National Parks and Monuments. I really cannot tell you how many visitors we have had. On my last nine trips to the sands I have met an average of ten cars in twenty minutes. The most on any trip was fourteen and the least was six. I do not care if you divide that by five or fourteen or multiply (Miller measurements) just so you remember that thirty cars an hour for ten hours a day, with five people to the car , indicates that we have something like a half million visitors through the White Sands National Monument yearly.

"Speaking of Attractions:

"It looks now as though the wild ass of Asia or the Congressional variety have nothing on us. Investigators say that we have hundreds of wild asses out in the Sands, which are 'paint' in color, so fleet of foot that the fastest horse cannot turn them, so intelligent that they will dig down a foot or more for water with their front feet, so fierce that the best of the cow men do not care to contact them.

"Our project seems to be coming about right. We wish you all a very Merry Christmas and a Happy New Year.

Tom Charles."

You might know Tom would spill the beans by his quotations from one of those Bull Sessions when we were trying to put them over on you as a series of "contacts" which amounted to a "conference." Our water-survey crew has found water only four or five feet beneath that proposed parking area where the road will enter the Sands, and do you know what Tom wants to do? Dig a lake there! And I bet, if we don't watch his vouchers he will ring in seventy-five gallons of red dye on us and we will discover a red lake right out there on the road!

By the way, we got hold of a good yarn over there in Alamogordo. The Alamogordo Chamber of Commerce got hold of a dandy film of the White Sands which is mighty publicity for the town, and started it on its way across the country. Then the film got lost and they mighty near never found it and when they did they learned that Tom Boles had gotten hold of it and tacked on a few hundred feet of pictures of that enlarged Badger Den he has charge of and it was sailing under a Carlsbad Cavern title!

TUMACACORI NATIONAL MONUMENT, George L. Boundey, Custodian, Tubac, Arizona.

Mr. Boundey reports as follows:

"Dear Mr. Pinkley:

"We had 1134 visitors for the month of December. Thirty-four states and five foreign countries were represented. The nights were cold but the days have been warm and sunny throughout the month. The winter birds from the north came about three weeks earlier this year but

quite a number of our summer birds have not yet left for the south.

"We are anxious to get the work under the Civil Works program started at our Monument but have been delayed up ~~the~~ to the present for lack of an engineer to lay it out.

"Due to several Government projects under way at Nogales the business men report the best Christmas trade for the past three years. We had about a hundred visitors on Christmas day and a few of them were sober.

"We are receiving such poor service through our post office at Tubac that I am considering if it might not be advisable to have our mail come out by stage from Tucson. By Tucson stage we could get our mail 24 hours earlier.

"The thousand men being housed in the old army barracks in Nogales have been put to work building a road from Fort Huachuca to Nogales. This will shorten the present road and will bring considerable of the east traffic by way of Nogales and the Mission.

"We wish to take this opportunity to wish the whole force a very Happy 1934.

Sincerely,

George Boundey."

WUPATKI NATIONAL MONUMENT. Dr. H.S. Colton, Custodian, Flagstaff, Ariz.

Dr. Colton has the following report to make for the month:

"For the first two weeks of December Mr. TenBroeck Williamson and Mr. James W. Brewer, Jr., were employed by the Museum of Northern Arizona to test the dumps for C.W.A. Project 10. On December 15th, the Custodian took fourteen men to the Monument and established a camp in the canyon below Wupatki, and out of sight of the ruin. Work was begun the next day on the sight. Trenches were run to test the depth of the debris. On the eighteenth the company was brought up to twenty men.

"The Museum supplied four portable houses with stoves and built a kitchen and mess hall twelve by thirty-six feet to give shelter to the men. The Forest Service loaned their small house one half a mile away for an office, which is used by the draughtsman and the clerk. A few of the men are lodged in Rooms 44, 35, and 36 of the ruin. The Museum has rented to the expedition the Museum 'pick-up' for the Foreman, and the trailer to carry water to the site for reconstruction purposes. The Museum has also loaned the expedition their plane table, alidade, etc.

"The Wupatki Expedition, as organized, consists of:

J.W. Brewer, Jr., Foreman.
Ten Broeck Williamson, Assistant Foreman in charge of archaeology.

Richard Vankenberg, Assistant Archaeologist.
J.C. Fisher Motz, Assistant Foreman in charge of reconstruction and Survey.
14 laborers, a clerk, and a carpenter's helper.

"On December 26, the Walnut Canyon Expedition took to the field with Mr. Dale S. King, Foreman and Archaeologist, with five men. On Saturday, December 23, the Custodian with Mr. King, visited the Walnut Canyon and found the conditions there, due to the high altitude, impossible for work. Snow covers the entrance trail and the shady sides of the Canyon walls. The road into the Monument was almost impassable with mud, and there is no water or shelter. Therefore, with the permission of the Superintendent of Southwestern Monuments, the party was transferred to the Citadel group of ruins, seven miles from Wupatki, on the Wupatki National Monument, in a lower altitude. The men are based on the Wupatki Camp and the Museum of Northern Arizona has constructed two portable houses to give them shelter. The men are using the Wupatki mess.

"On the day after Christmas Mr. Irwin Hayden, and his son, Julian, arrived and the next day they set out for Kayenta with Preston Coston, to take over the archaeological work at the Navajo National Monument, with John Wetherill.

Harold S. Colton".

From far distant Capulin comes this monthly report from Mr. Farr:

CAPULIN MOUNTAIN NATIONAL MONUMENT. Homer J. Farr, Custodian;

"My dear Mr. Pinkley:

In making this report of the activities of Capulin Mountain National Monument for the month of December, 1933, I wish to state our weather has been the warmest for December in more than 25 years. I note that the cones which contain the highly flavored pinon nut are now budding out as large as a lead pencil and are full of the tiny nuts. In parts of this country the peach trees are reported to be in bloom, which is something never known before to the earliest inhabitant. We hope to suffer no extreme punishment for all these errors of our kind weather operator.

"On the 16th of this month we enjoyed a friendly but very brief visit from Mr. Walter Attwell, our genial Engineer, and his party of four, Stuart, Williams and Lyke, all of whom exhibited more pep and energy than the Custodian could match by their climbing this old mountain of volcanic eruption and surveying a circular trail from rim to the bottom of the crater and completely around the crater on the very brink of it. Engineer Attwell came within ounces of being pulled over into the crater by the surveying chain which had hung on a boulder of lava; however after a second of hanging on the brink of the crater he wheeled and regained his balance and went his way rejoicing none the worse for the wear or scare.

"Assistant Smoke Lyke, of the party, came near passing out in sur-

veying the rim, which Mr. Attwell explained was caused by his coming from sea level to about 9,000 feet in about forty-eight hours.

"The Custodian had things pretty well in hand as regards our Civil Works program and had ordered his men and equipment, so on the next morning after the departure of the engineering crew at 8 a.m. we were all at work with a crew of twenty-five men. Most years in December the weather would not permit us to work with any large degree of satisfaction, but this winter the weather has been lovely and not a moment's time has been lost. In fact six hours seemed to us rather short, but we have actually learned to take advantage of the six hour day and do as much good labor as before in eight.

"We began operations at the bottom of the two mile road and are working up in order that we might have the road cleared for our own daily travel. By the first Thursday the road was all cleared of rocks, fallen trees and brush. On the fourth day of our labor, George H. Sholly, from Bandelier, by request of Mr. Attwell, brought us a compressed air jack hammer outfit as the Engineering crew had pointed out to the Custodian the need of having about seven of the most prominent points on the road along the east side of the mountain blasted off and the depressions which are on each side of a prominent point, filled with the excavated material. Poor Sholly, after one and a half days of hard labor, decided that the air hammer could not be used successfully in this volcanic material. Sholly resorted to every known method of drilling but failed. This material is very hard to pick or drill by hand but is too crawly to drill by air hammer: however Sholly did his best and got part of the points drilled. We will drill and shoot the rest of them by hand churn drills.

"I never expect again to handle such a loyal two dozen men that can accomplish as much as we have in the past week. However none of them feel that they have been overworked and I believe all will be willing to 'hit the ball' next Tuesday.

"If we could only find funds available to erect a circular retaining wall around our turn-table at the top end of our road, build a retaining wall for about 1,200 feet to prevent material from sliding into the road, survey and fence our Monument with a good fence to eliminate the dozens of cattle which cause so much of our road trouble, erect a good view finder on the very tip top of the trail around the crater, place the Custodian on a regular and very modest salary and get his wife a new dress for Christmas; then I would surely believe in Santa Claus and the depression would begin to fade away.

"Last week the Custodian received from our County Administrator some very, very fine views taken about four miles away from an airplane. They are very good liknesses of our old Volcano and I am mailing one to our genial Superintendent; I only wish I had one to send to each of my fellow Custodians and Superintendents.

"Wishing you one and all a Happy Christmas and a delightful New Year,
Homer J. Farr."

GRAN QUIVIRA NATIONAL MONUMENT. W.H. Smith, Custodian, Gran Quivira, N.M.

"Dear Mr. Pinkley:

"For the month of December we have registered 295 visitors who entered the Monument in 74 vehicles, which shows an increase over the same month a year ago of 70 visitors and 21 cars. Among our visitors were several of our Park Service officials. On December 7th Mr. W. G. Attwell, of the Engineers, with Mr. Richey and wife and Mr. Bennett of the Landscape Division, were with us. They went over the plans for the Civil Works program for our Monument.

"It was agreed to put our road of approach on a six per cent grade for the first two thirds and to run into a 7 per cent for the last third before you turn south for the parking area. They also authorized the construction of a short lap of trail from the parking area around in front of the Mission as shown in the Master Plan.

"Again, on December 15th Mr. Attwell with Mr. Stewart and Mr. Williams all of the Engineers, were here and surveyed the road, staked it for grade, and put the men to work, getting the program started on scheduled time with Mr. C. A. B. Scharf as Foreman.

"The weather has been fine for the last month with bright sunny days and cool nights. This has been the most open weather I have ever seen in this country in the winter season; it certainly is fine for the workers on our Civil Works program.

"The work on the entrance road is progressing better than we expected. The personnel of the crew is made up mostly of dry farmers who are raisers of beans, corn and sorghum. They are good, strong specimens of American manhood, ranging from 21 to 50 years of age. It is easy to tell from their attitude, their merry laughter, and companionable contact with each other, with those in authority and the way they do their work, that they would much rather be allowed to earn their way than to have it given to them.

"We have moved 84 cubic yards of very hard blue limestone that laid in ledges approximately twenty inches thick, a distance of over 125 feet. We have moved 234 cubic yards of sand and caliche an average of about 400 feet. Both of the above mentioned of course were taken from the cuts and deposited in the fills. When we have finished the approach road to an 18 foot highway of a 6 per cent grade we will expect even the historic 'Henry' to gallop up to the parking area in high gear. The above work was accomplished at the relative small cost of $400, which included some engineering. Considering the rocks and their hardness, moving 318 cubic yards an average of 150 feet for $400, or $1.26 per yard is very reasonable as I have known of large contracts in easier ground to have cost considerable more. In conclusion, I feel safe in saying that there has been no waste or incompetence in handling the Gran Quivira Civil Works project. I am well pleased with Mr. Scharf and consider that we are fortunate in getting him as our Foreman. He certainly is able to build roads and handle men, and is diplomat enough to handle some very

grave situations. He has been heard to say that he has never gone into a community where he has been better treated. In concluding this report I will ask Mr. Scharf to add a few words.

Cordially yours,
W.H. Smith."

"It can be said wothout being officious that Mr. Smith is very efficient and conscientious in his duties both to the visitors and to the United States. He is very interested in getting a good highway to come by Gran Quivira and to get good accommodations established at the village of Gran Quivira to care for visitors who wish to stay and especially for those who want to come and study our wonderful prehistoric southwest. More power to him; he is the right man in the right place.

"Money could be judiciously expended at Gran Quivira for a large museum, a garage, and an administration building as well as for further excavations and repairs to ruins. Within a radius of 30 miles there are at least ten buried cities, insuring plenty of artifacts for a large museum. Having worked for four of the best archaeologists, Dr. J. Walter Fewkes, Mr. Jesse L. Nusbaum. Dr. Morley, and Dr. Kidder; I believe I ought to know a fruitful field when I see one; especially when it is as magnificent as this one. I get almost as enthusiastic as Mr. Smith when we get to talking about what could be done here and how fine it would be for the visitors and what a treasure for the one who would be really interested in the prehistoric southwest. It would be a shame to let these hidden treasures be buried from the American tourists any longer than it will take to efficiently get them out and arrange them in a suitable place for the pleasure and education of our people.

Respectfully,
C.A.B. Scharf."

I just want to remark here that the American Legion at Mountainair, New Mexico is doing its part toward boosting the community. The restaurant man there gave Walt one of their envelopes on which is printed the following: "Mountainair is surrounded by the most interesting ruins of Indian and early Spanish civilization in the Southwest.

"When travelling through here arrange to spend a day or two and visit the Gran Quivira National Monument, which was a thriving town when the Spanish discovered New Mexico, and whose ruins are still complete enough to show the life of these ancient people and the efforts of the Padres to convert them to the Church. Gran Quivira is 25 miles south of Mountainair.

"North of Mountainair is the oldest apple orchard in the United States, planted before the landing of the Pilgrims and still bearing fruit."

MONTEZUMA CASTLE NATIONAL MONUMENT. M.L. Jackson, Custodian, Camp Verde.

"Dear Link:

"For the month of December, Montezuma Castle has had 1,045 visitors of which number 275 made the climb into the building. Seventeen states and no foreign counuries were represented. The weather has been good in

the Valley with a little snow on the higher roads while the Valley roads have been in fair condition.

"We are due to have soke activity here for a while. A portion of our Civil Works program was started on December 18th after receipt of approval for a job of archaeological research and repair to ruins. Ten men are employed on this work, under the direction of Earl Jackson, a graduate archaeologist from the University of Arizona.

"Engineer Walt. Attwell arrived on the 20th, with his crew of engineers, and they immediately went to work laying out the different parts of our project which had yet to receive approval before we could start the work. The engineers now have enough of the work laid out to start our full quota of men tomorrow, the 26th, the main project being to improve the entrance road from the highway leading down to the Castle. The work is coming up at a very opportune time, as Mr. R. W. Wingfield, the local relief agent, reports that it is pretty well taking care of the unemployed married men of the district. These men are all approved by the C.W. Administrator.

"We are very glad to get this Civil Works money, as it will catch up a lot of loose ends. We had been wondering for years how appropriations could be had to take care of them, and this work answers the problem. Walt. has assured us he will drop in from time to time, so we have no fear of any engineering problems through the duration of the project.

"On the whole, travel seems to be holding up quite well through the winter, roads are being improved all through the Valley, people in the Valley are at work and are optomistic, our museum collection is being improved, and the Monument is being helped generally, so we are wading into the new year with high hopes."

Cordially yours,
M.L. Jackson."

PIPE SPRINGS NATIONAL MONUMENT. Leonard Heaton, Acting Custodian.
Moccasin, Arizona.

"Dear Boss:

"A Merry Christmas to you and the other members of the Southwestern Monuments family, and I alsk wish you a Happy New Year.

"If you folks are having as fine weather as I am you certainly ought to be happy, as this morning, while going around getting an idea on what work I want done next week by the C.C. A. fellows, I kicked up some dry leaves and much to my surprize, found thistles and grass coming through the ground, some nearly an inch high. There has not been a cloud in the sky for a week and the ice that is frozen during the night is gone by noon. This is some different from a year ago when we were under some twelve inches of snow and the mercury hovering around the zero mark for several weeks, and the travel stopped by the many snow drifts. I only hope this weather continues so we can accomplish what we have set out to do.

"The travel for the month of December, beginning November 24th and running to December 24th, is as follows:

Arizona, ~~[illegible]~~,	252,	passengers,	102 cars.
Arizona -------	146	"	58 trucks.
Utah----------	28	"	15 cars.
Utah----------	57	"	30 trucks.
California-----	16	"	8 cars.
California-----	8	"	3 trucks
Park Service---	7	"	4 cars.
La.----------	3	"	1 car.
Horse back riders	60	"	0
Live Stock------		534.	
	~~548~~ 578	passengers	222 vehicles.

"Number conducted through the fort, ------29.

"Our standard compared with last month is a decrease in live stock of 641; in passengers, 24; in contacts, 44; increase in vehicles, 17. On the whole the indication is that travel is about normal.

"On the 14th I received a call from engineer Cowell, of Zion National Park, about the Civil Works program, after which I called Superintendent Pinkley about starting to work. Then I immediately went to Short Creek to confer with the local Civil Works Administrator about getting my men. I asked him for eight men on the 16th and eight more on the 18th.

"On the 15th I went to Kanab and, after getting bids on some small equipment from the different stores there, I purchased $15.43 from the Bowman Mercantile Company. On the 16th Mr. Cowell arrived from Zion and eight of the men showed up. At 9.30 we started work on the road working east from the top of the hill just west of the ponds. Mr. Cowell and myself, with the help of two of the men, surveyed the road from the west to the east boundary. December 18th five more men came in and by December 23rd I had all the sixteen men allotted me for work. The reason that the last eight men were so scattered was that some of the men who were called had other work and new names had to be drawn.

"The past week I have had the men working on the road and cleaning up about the meadow and the tunnel. We had a surprise in digging out the road where we are taking a part of the hill off. After we had taken off about eight inches of dirt from the highest part we begun to find cedar and pine logs which had hardly decayed at all. When we reached the 13 inch level we dug up about 20 feet of two inch pipe, 15 feet of one inch pipe and some scrap iron. There were several different colors of dirt, indicating that it had been hauled in at different times and from different places. After talking with some of the old timers about my finds, I found that at one time the troughs for watering stock were about in that place and the timbers had been put there to keep the ground from getting soft and sloppy. I am taking this hill down about 24 inches and putting the dirt in the low place east of the pools.

"In cleaning out the tunnel, I found that what Bob Rose and I supposed

to be the bottom was only dirt that had fallen in and that the original bottom is 2½ feet or more below that. If we rock up the sides of the tunnel as we had planned it will mean that the upper meadow pool will be lowered about two feet. I will therefore wait until some Landscape man comes in before I rock it up.

"I believe I am getting along fine with the work and will be able to do a lot of good in the way of improvements before February 15th.

Sincerely yours,
Leonard Heaton."

I might interject at this point, Chief, the interesting fact that Leonard was the first of the field men to come under the wire with a voucher that didn't need nine different corrections. Most of the boys were so brilliant and so anxious to make dirt fly that they couldn't be bothered with the pages and pages of instructions that Hugh sent out for their education, as a result of which they have been perfectly ingenious in finding and developing the wrong ways of making out papers. It looks like Leonard knew he wasn't real smart about the paper work end of this game and he prayed over those detailed instructions until he has turned in the best papers that have come out of the field. Hugh will have something to say about this a little later on in this report, but he won't say half there that I have heard him say when we open the mail and find two or three new ways of doing things wrong, and it is a poor mail that doesn't bring that many.

BANDELIER NATIONAL MONUMENT. M.O. Evenstad, Acting Custodian, Santa Fe.

"Dear Boss:

"Although I have not kept an absolutely accurate account of visitors for this month, the approximate count is 110. This includes a picnic party which was here on November 29th and which arrived after the November report had been submitted. Today we ran 16 but some days were blanks. The month has been one full of activity except the first when we were in more or less of a dormant state while digesting the turkey Thanksgiving dinner we received at the hands of the army. The entire then existing population of the Canyon were invited to share turkey with the Army, which offer was accepted without undue deliberation.

"Our E.C.W. work continued actively throughout and on the 9th the first car drove down into the Canyon. This honor was reserved for Engineer Attwell and he had with him Mrs. Frey, who operates the hotel known as the Frijoles Canyon Ranch. Mrs. Frey said she had been waiting for this ride for nine years. Although as yet the road is only passable, most of us choose to use it in preference to the 'long, long trail'. Mr. Attwell left on the 14th for a trip which will include many of the Southwestern Monuments.

"The weather has looked quite threatening at times, and twice it began to look as if real serious winter weather was coming,, but it cleared off and we are at present enjoying weather that permits our work to go on without interruption. Old residents of Santa Fe proclaim this the finest winter weather for twenty years.

"In the middle of the month our first contingent of Civil Works men arrived. The prospects of their arrival and their barracks raised a sanitation problem for the Army C.C.C. camp. This was at once taken care of by the Army furnishing about 4,000 feet of two inch pipe and we furnishing the labor, and running the line from above any possible point of contamination. By the 21st the C.C.C. camp was getting water out of the new line, which, as yet, has only a temporary intake point. Prior to this the camp was getting its water from a near point on the creek, pumping it into a tank. To insure against frost the new line was buried four feet or more below the surface depending on the contour of the ground.

"Comfortable quarters have been arranged for the Civil Works men by cleaning out Mr. Frey's stable and moving a double section of the truck shed into the Canyon and boarding it up. Bunks, both uppers and lowers, were made out of odds and ends of lumber. We have bunks for 64 men and by staggering the work periods, we expect that our present quarters will take care of the housing problems for the whole quota. The entire force is boarding at Frey's hotel for 25 cents per meal.

"Chief Ranger Lawrence F. Cook, of Sequoia National Park, arrived here on the 15th to study fire fighting and fire prevention work. A conference was held with Ranger Buchanan, of the Forest Service, on the 17th and many points were discussed. The result of this as well as our own observations enabled us to map out a tentative program which is the subject matter of a report made by Mr. Cook to Fire Control Expert, Coffman, a copy of which you have no doubt received by this time. Mr. Cook impressed me as being a very capable man, well versed in fire problems, and his recommendations should be given serious consideration.

"We were delayed at times by breakdowns on the Cletrac Tractor-Bull dozer outfits, but repairs were speedily secured from Denver and as a general thing, delays were negligible. The Forest Service trucks, loaned to us at the start were all taken back on account of C.W.A. work springing up in their Service. In order to speed up the work to avoid possible inclement weather, it may be necessary to rent a few trucks for a limited period. Culvert pipe sufficient for our drainage needs on the entrance road has been secured and hauled out to the location, and the first work of laying the pipe began today. We are going to push the work along as fast as possible in order to complete the road as we have no guarantee that the winter will remain open.

"Several accidents occurred during the last few days. Two of the C.C.C. boys, returning from Santa Fe with a load of culvert pipe on the 24th, upset their truck near the utility area at the top of the hill. Both were quite seriously injured according to reports given me and are

now undergoing treatment at the Veterans Hospital at Albuquerque. Alfred Lieske, C.W.A. Superintendent, and Harry F. Brown, another C.W.A. worker, were driving on the road south of Albuquerque on the morning of the 24th when they blew a tire which caused the pick-up they were riding in to collide with a car driven by an Indian. Both cars were badly damaged. Mr. Lieske received some head injuries, and is being treated by a doctor in Santa Fe. He is attending to his duties, however, against our advice. One of the C.W.A. workers from Algodones hurt his back while working on the pipe line ditch on the 26th, and was taken to his home and placed under the care of the C.W.A. doctor at Bernalillo.

"Thomas F. Martin, Landscape Foreman, reported for duty on the 26th, and Paul Reiter, with two other men expects to start an archaeological party on a survey of the various ruins on the Monument tomorrow. Mr. Reiter is connected with the School of American Research at Santa Fe.

"Season's greetings to all the personnel of the National Park Service and hopes that the New Year will bring all of us happiness and prosperity."

Sincerely yours,

------- M.O. Evenstad."

ARCHES NATIONAL MONUMENT. Marvin Turnbow, Custodian, Moab, Utah.

We have the following report from Cliff Presnall, Park Naturalist of Zion National Park, on the establishment of the Civil Works program in Arches National Monument.

"In accordance with instructions issued December 11th, I left Zion Park on the 12th in company with Superintendent Patraw to organize the archaeological party authorized under C.W.A. for Arches National Monument. The 13th was spent at Salt Lake City conferring with C.W.A. officials and searching for a scientist to head the expedition, Frank Beckwith, of Delta, Utah, being finally secured.

"Since the State C.W.A. Administrator instructed us to requisition most of our personnel from Carbon County, I spent the 14th at Price selecting a crew, and on the 15th went to Moab where a local foreman, packer and cook were hired, completing the allotment of fifteen. From the 16th to the 18th inclusive I assembled camp equipment and established camp at Willow Springs, the only living water located advantageously to the Monument. It is five miles from highway 50 and three miles from the Monument, necessitating the use of pack and saddle animals. In spite of the consequent difficulties in transportation, and vexing delays in securing equipment, it was possible to start the entire crew of fifteen men to work on the morning of the 18th. The men gladly agreed to work from dawn to dark the first week, thus hastening the preliminary camp and trail improvement, and giving them their full forty hours of allowable time.

"On the 19th I rode over a portion of the Monument in company with Frank Beckwith, leader; Ralph Anderson, engineer; and Marvin Turnbow,

packer and Custodian of the Monument. We determined upon a program of work, and selected camp sites for a mobile surveying group of five men, to whom water and supplies would be packed; thus allowing the survey to be speeded up and kept ahead of the more leisurely study conducted from the base camp.

"The program as roughly outlined is as follows:

1-Survey: Ralph Anderson and four helpers: to make an accurate large scale map with as much topography as practicable; and to work with Beckwith and J. C. Anderson in locating points of scenic and scientific interest.

2-Archaeology:- Frank Beckwith and helpers as needed: to make a thorough study of the archaeology of the Monument and as much of the surrounding country as is necessary for correlation.

3- Geology:- J.C.Anderson and helpers as needed: to map the geology in detail; to assist Beckwith; and to take all official photographs. Mr. Anderson believes he can secure publication of the Expedition's report as a Bulleting of the University of Utah.

4- Conduct of Camp and labor: Jack You Van, Foreman: charged with overseeing all labor, checking camp and mess accounts with clerk and cook, and directing packing of supplies. Any men not engaged under the first three jobs will be kept at necessary trail improvement, transportation into camp being at present a serious problem.

"The 20th and 21st were spent in returning to Zion Park with a crippled automobile, including a lay-over of 24 hours for repairs.

"Expense of equipping the expedition was rather heavy (being approximately $350) due to inability to borrow or rent in that isolated region. The local Forest Service and C.C.C. camp loaned to the limit of their ability, which was not great.

"The personnel of the camp is as follows:

Frank Beckwith, Archaeologist and leader---	$46.66	per week.
Jack You Van, Foreman----------	38.00	" "
J.C.Anderson, Asst. Geologist----------	1.10	per hour.
Ralph Anderson, transitman----------	1.10	" "
Heber Christiansen, Cook----------	1.10	" "
Orson Larson, Rough Carpenter----------	.90	" "
Bert Milano, Clerk ----------	,75	" "
Marvin Turnbow, packer with 2 mules-------	.75	" "
Additional mules----------	.12½	" "
1 rodman----------	.80	" "
1 Chainman----------	.70	" "
1 Teamster----------	.60	" "
1 Truck driver----------	.60	" "
Truck when needed----------	.50	" "
3 Laborers ----------	.50	" "

In connection with this Arches job, I want to quote part of a letter from Superintendent Petraw:

"Accompanied by Park Naturalist Presnall, I left here on the 12th going to Salt Lake. On the 13th we called at the State Civil Works Administrator's office and arranged for requisition of the allotted number of men. We had considerable difficulty locating an archaeologist to place in charge of the work and were about to wire Berkeley for the selection of a California man when we got in touch with Mr. Frank Beckwith, of Delta, Utah. Mr. Beckwith is a man of mature age and has indulged in archaeology many years and has prepared several publications on the subject. Mr. Presnall left Salt Lake in the afternoon and drove to Moab for the purpose of inspecting the Monument, organizing a crew and outlining the project. Mr. Beckwith probably reported on the job yesterday."

While the above extract is a part of the history of the project and is therefore made a part of this report, my real reason for bringing it in, Chief, was to give a little publicity to that exquisite phrase; "Mr. Beckwith has indulged in archaeology for many years." I know now why all those bone diggers are a little diferent from common folks, not really foolish, but a little touched; they have been indulging too much in archaeology! The phrase is good and I believe will have a long life among the Southwestern Monuments.

NATURAL BRIDGES NATIONAL MONUMENT. Zeke Johnson, Custodian, Blanding Utah.

Zeke made the Salt Lake papers this month with a bang. The following write-up also carried a picture of him, - much better looking than Zeke of course but quite complimentary as showing they had done their best to get a likeness.

"Zeke Johnson, who has been watching over the Natural Bridges near Blanding in San Juan County for 23 years, will never be appeased until his long cherished dream is realized - - construction of a highway from the bridges to connect with the highway at Hanksville in Wayne County.

"Zeke boils with enthusiasm when he visions this 80-mile stretch of road, which will divert thousands of tourists from Mesa Verde National Park through Utah, into Zion Park and Bryce Canyon. These tourists whom Mr. Johnson talks about are now going south to Gallup New Mexico, and swinging over to Flagstaff, Arizona. Many, in fact the majority, he says, are missing scenic southern Utah.

"'The vicinity of the Natural Bridges, where primitive Hopi Indians roamed,' he declared, 'is new to the tourist, but will be one of the most popular play grounds in America. There are numerous ruins of cliff dwellings in the vicinity of the bridges perched in the canyon walls in almost inaccessible places.

"'But that isn't all we have down there', avers Zeke, 'The Monument consists of 7,400 acres. It includes two large caves which are located some little distance from the bridge region. There are three large bridges and four small ones.'

"Explaining how these bridges originated, Mr. Johnson pointed out that

they are the result of stream erosion in an elevated region. Doubtless, he said, thousands of similar ones have been formed and destroyed in past ages and many more will be made and later destroyed in ages to come.

"But Zeke is not the only one who can see the value of building a road through the region, which will make scenic San Juan and Wayne counties available to the motorist. He announced that George H. Dern, Secretary of War and former Governor, is one of his staunch supporters. He has taken the War Secretary through the region.

"'You can't realize how beautiful that country is until you traverse it,' opines the vetran Custodian, 'I have been there every summer for 23 years. Fourteen years ago I was officially appointed Custodian through U.S. Senator, William H. King.'

"Mr. Johnson is a native of St. George. He was born April 16, 1869. He has a family. He winters in Salt Lake but the minute spring officially arrives, Mr. and Mrs. Johnson are en route to 'his' natural bridges for the summer.

"Zeke issues an invitation to Salt Lakers to'come down some time and see what your state has to offer!'"

"Zeke has the following to say about one of his problems, writing under date of December 28th: "The road from just below the Bears Ears to the Edwin Bridge doesn't seem to belong to anyone. It was built with $10,000 appropriated by the State four or five years ago and there has never been one cent spent on it since, only just the little I have been able to do to keep it passable and another good rainstorm or two will take it out. On that hill coming down off the mountain there are no culverts and the water just runs along the rocks and it will soon be a thing of the past unless we can get some work done on it, and it won't take much but neither the county nor state will claim the road and there are no funds for it. I have talked and begged for some help from the county commissioners but never have been able to get one cent. As yet I have no prospect for any money unless you can do something for me, and something must be done or the road will soon be impassable.

"I am still living in hopes of having a Custodians quarters out at the Monument. There are enough visitors go out there now to justify quarters. I would love to live out there all summer but I cannot live under a tree and feel comfortable and my old tent is all worn out and I hate the idea of buying another. I would be willing to jackass water up that hill out of the Canyon for several years yet if I could only have a cabin to live in.'

I wish the State of Utah would put that road of Zeke's on the Civil Works program for the State. It looks to me like that would be the logical solution of it. The local county is too poor to do anything and under the law we cannot expend our money outside the boundaries of the reservation. I will ask Zeke to look into this and see if his road cannot be put on the Civil Works list when spring opens up enough to let the crews get in there to work.

We have been trying to get the Custodian's quarters for the last couple of years, thus far without effect.

NAVAJO NATIONAL MONUMENT, John Wetherill, Custodian, Kayenta, Arizona.

On December 19th, John wrote me as follows:

"Dear Frank:

"We are ready to start our camp at the mouth of the Tsagi in Marsh Pass as soon as we arrange for the transportation. We will be located there until the party is assembled. It will take about ten days in the pass to get all the party together. When we start for Kit Seal we will need pack stock. We may make two camps on the way for the workmen. The scientific party will move on to Kit Seal and go to work there.

"When we are located at Kit Seal, we will be 256 miles from Holbrook, our county seat, thirteen miles from a wagon road, 160 miles from the nearest railroad point at Flagstaff, and 25 miles from the nearest telephone."

John doesn't know how lucky he will be in that location. Many, many times in the last month or so have we wished we were that far from telephones, telegraph stations, railroads, and C.W.A. people specifically and in general.

We were very glad to have Irwin and Julian Hayden join John's archaeological party. Irwin ran the Los Angeles Museum- Van Bergen Expedition here at Casa Grande three or four years ago and we have the assurance that with him on the bone digging end of that work, it will be well done.

CASA GRANDE NATIONAL MONUMENT, Hilding F. Palmer, Custodian, Coolidge Ariz.

The following report was received on January 1st.:

Dear Mr. Pinkley:

"For my report this month I have had the men who are in charge of the various projects going on at the Monument submit reports of their activities; some of these reports I am submitting as they were submitted to me, others I have worked over. This has been one busy Monument, but, probably, no busier than the others under your charge. Many needed and valuable improvements have been accomplished under both the Public Works and the Civil Works Programs."

"The following report of visitors and weather conditions was submitted by Ranger Frank L. Fish who, with the help pf Francis Seagoe, a temporary Ranger, hired because of the regular personnel being so busy with the C/A program, efficiently handled the guests who visited the Monument during the month:

"There was a decided increase in the number of visitors compared with the same period last year. Most of the gain occurred during the holiday season. During the last eight days of December of this year 1002 people arrived and were taken throught he Ruins and Museum; all types of persons were represented, from the scientific minded to a type represented by the lady who remarked after her first few minutes,'These must have been wild Indians.' Evidently she considered the Casa Grande was not built by Fred Harvey.

The total number of visitors for December of this year was 2343 as compared with 1671 for the same month last year. This was an increase of 672 or 40 percent. All states of the Union were represented with the exception of Alabama, Delaware, Louisiana, Maine and West Virginia. Other territoriees and foreign countries represented were Alaska, Hawaii, District of Columbia, Canada, Germany, Uruguay and British East Africa. Out of State people made up 46 percent of the visitors. California furnished the greatest amount with 18%, the same as the year before. People using the facilities of the Monument but requiring only momentary service of the personnel numbered 254, making 805 visitors of this character during the past three months period. Guided trips through Compound A 275 and through the museum 240. The quarterly number of visitors for this year is 6,ii9 as compared with 5576 for the same quarter last year; this is an increase of 543 or 9 percent. This increase for the month and the quarter certainly shows that conditions must be getting better and more people are on the road.

The weather was ideal for traveling during the greater part of the month. The minimum temperature was 20 degrees on the 18th; the maximum 79 on the 26th. The mean maximum for the month was 68.3, the mean minimum 31.7 with a mean for the month of 50 degrees. Precipitation was only .09 of an inch for the month as compared with 1.91 for the same month last year . There were26 clear days, and 5 partly cloudy."

(Iam greatly pleased with this visitors report showing such a decided increase over last year.)

" Work under the Public Works Program was continued during the month and the program with the exception of on project is practically complete. There are small balances in each account which will be used during the coming month to take care of a few small unfinished details. A detailed report of each project follows:

Project #F.P.118 - Camp Ground Development.

This project is complete with the exception of the few details mentioned above; 210 feet of remadas or brush shades were constructed according to a plan submitted by the Branch of Plans and Design; twenty new picnic tables were built and painted and 15 old ones were repainted to match; seven fireplaces with steel cooking plates were constructed of adobes and plastered; a new ~~stand~~ hydrant was purchased and installed to replace the standpipe used formerly; a two swing swing standard and a double teeter standard for the children made from 1½ inch pipe are now in process of construction. This picnic area is becoming increasingly popular each month and is being used by a large number of people; each day and especially Sundays finds many people bringing their lunches and seeing the features of the Monument, after using the conveniences of the picnic grounds.

Project # F.P.119 - Repairs to Two Quarters.

This project is now complete and one quarters is already occupied

and the other will be beginning January second. One quarters now occupied by the Assistant Superintendent Southwestern Monuments was redecorated on the inside and several repairs to base boards, closets etc made and a coat of stucco given the outside, the window sash repainted and repaired; the other was the old office and museum and it has been completely remodeled; the walls were plastered inside and stuccoed outside, new wooden floors installed to replace cement ones that had gone to pieces, a new roof was placed over the building, new closets built, two new connecting doors cut through the walls, a new window put in, the walls and woodwork painted and kalsomined and the building converted into a first class four room employees quarters. The exterior of both quarters have been stained to match the other buildings on the Monument.

Project #120 - Water Systems Extensions.

This project is also complete except for one or two details. With the $900.00 allotted to this project all 3/4 inch water lines have been replaced with 1½ inch lines, and fire lines have been run to each building in such a way that with 50 feet of hose all parts of each building can be reached. The water storage has been increased from 1000 gallons to 2000 gallons by replacing two 500 gallon storage tanks with two 1000 gallon tanks. This fire protection system was not intended to extinguish any large fire after it had gotten under way but to serve to prevent any fire from spreading to the ajacent buildings. From the nature of our construction we have very little fire hazard and consequently an expensive outlay for fire protection is unnecessary. The small balance in this account will be used to purchase hose.

Project # F.P. 121 - Walls Around Administration Building.

This project still has some work to be done on it. The walls are all up and plastered and stained according to a plan furnished us by the Branch of Plans and Design; unsightly guard rails of wood on two sides of the Parking Area were removed and cement curbing constructed to take their place. The curbing and walls act as an effective barrier to keep visitors from going to the ruins directly from the parking area without registering or obtaining a guide, thus cutting down the danger of vandalism to the prehistoric ruins and making it much easier to handle visitors efficiently on busy days.

All four of the above projects have been handled by force account. Work was first started on September 6th and has been carried on continuously ever since. The total allotment for the four projects was $6,300.00. There is still left for expenditure in the four accounts $370.00, making $5,930.00 expended to date on the four projects. This has been divided as follows, LABOR $3.590.15 MATERIALS $2.339.85. There were 5.698 man hours of employment given to workers on the four projects. All men used were, of course, secured through the National Reemployment Service.

And a word might not be amiss here regarding the advantages of this Service. I have found the County Manager efficient and willing to cooperate in every possible way; practically every man furnished has been capable and has given good work. Only two men furnished through this

Service for our Public Works Program proved to be inefficient and had to be discharged and we could have gotten along with them if there hadn't been so many more willing workers needing a job. There is no question but what an efficient Reemployment Service can do better in placing men who need the work than the individual employer.

We have one other project under the Public Works that has not been started yet. This is the construction of a new employee's quarters which will be handled as a contract project. The Branch of Plans and Design have advised us that the working drawings will be ready January tenth; the bids will be advertised for and the contract let immediately thereafter.

Our Civil Works Program is progressing splendidly. We received word on December 5th that our program had been approved and that we had been allotted 34 men. On December 8th we were at work with a full crew. The men according to instructions were obtained through the National Reemployment Service with the same excellent results as noted above under Public Works. Only one man has proved unsatisfactory so far and had to be discharged

Ruins repair and grading of compounds was to be our principla program but pending approval of the Branch of Plans and Design and the Engineering Division of the proceedure the men were kept busy on several other projects that have needed caring for for a long time.

The foreman's report shows that 6 men were employed 2½ days in opening a trench 1 foot wide and sixteen inches deep and 1053 feet long in which our telephone line from the residential area to the Monument boundary was conduited in ½ inch galvanized pipe; (the line from that point to the Administration Building had already been conduited) the pipe was laid by two men in 1½ days and the wire was run in and the final connection made by the Telephone Co. in a little less than a day; the ditch was backfilled in two days; the workmen were exceedingly careful about destroying shrubbery and no injury to any vegetation resulted from the trenching operation. During the course of the ditch digging however a large and a small mortar of prehistoric manufacture w were uncovered and have been added to our museum collection. This conduited line replaces five poles that have been a blot on the landscape for many years.

The shoulders of our entrance road had never been completed and the foreman's report shows that seven men were started on this project on December 8th; the drainage ditch along each side of the road was straightened and the shoulders raised to the heighth of the pavement and covered with peagravel which was rolled in thoroughly with a 700 pound hand roller as it was laid; fortunately just as this operation was completed we had a light shower which put these shoulders in just the right condition for compacting and the roller was hitched behind a truck and they were rolled, rerolled and rolled some more. I think we now have shoulders on each side of our entrance road that will last a long time

with very little expense for upkeek; at least, if nothing more has been accomplished, the appearance of the road has been improved 100 percent. Even Harry Langley said nice words about it. The original crew of seven men was augmented off and on by men that were transferred from other projects that had been completed or did not need their full crew. Sometimes four or five men, sometimes a dozen were working on this project; It was completed December 26th.

At the time that the State Highway Department put in the road along our east and north boundary they dug deep barrow pits along the right of way to furnish material fro grading. This left a bank from one to three feet high along our boundary. At the time of every hard rain, water running from the reservation lands out into the barrow pits cuts the bank with many fissuresand in many places our fence is in danger of being washed out. The foreman's report shows that when men can be spared fromm other projects they have been placed on this fence line and are building this bank up about 6 inches higher, feathering the grade off on the inside so that it doesn't show, so that the water instead of running off at all points will drain to specified points where it can be taken out into the barrow pit over a concrete spillway.

An archaeological reconnoissance party was started on December 11th excavating a pure red on buff site in the southeastern part of the Monument. The work is still in a preliminary stage but Russell Hastings, of the Gila Pueblo, of Globe Arizona, who was loaned to us through the courtesy of Mr. Harold S. Gladwin to take charge of the work is very pleased with the results so far and is looking forward to getting some very interesting information from the site. This project is important to us because it is probably the only real early prehistoric site on the Monument. After the excavation is completed the site will be backfilled for preservation. Mr. Hastings report on the work to date is as follows:

PRELIMINARY REPORT ON EXCAVATIONS AT CASA GRANDE 1933
BY RUSSELL HASTINGS.

A site for excavation was chosen after examination of several of the mounds on the Monument. Surface indications of the site chosen were a group of three mounds lying close together near the southeastern corner of the Monument, sherds from which ran all the way from Colonial red on buff to Classic red on buff; however no particular area gave sherds of only Colonial period or of only Classic period. No polychrome sherds were present. It was felt the site would run from early sedentary times to early Classic times. There were no indications of dwellings. The culture seemed 100 percent Hohokam.

Excavation was begun December 11th, the first operation being to trench each of the mounds preparatory to taking stratigraphic tests. On the completion of those trenches, exploratory trenching was begun around the mounds in search of dwellings and cremation areas. No cremation areas have as yet been found but several floors were struck and the indicated r

rooms are now in process of being excavated. The exact number of rooms open is not certain because of the several areas of excavation have not yet been joined and there is a possiblity of walls between them that have not yet been exposed. All excavation has been accurately surveyed by the Engineer and detailed maps of significant areas will be made. Approximately 45 specimens consisting of stone, bone, wood and pottery artifacts have been removed from the site.

Significant features located to date are (1) one room covered by rubbish mound #1. (2) Three clay lined pits exceedingly well fired and very hard occurring above floors and certainly due to a later occupation than the rooms so far opened. (3) One pit containing charred bone fragments and ash, felt to be a cremation pit. (4) One floor area approximately 15 ft. square (excavation has not yet reached the limits of this area) containing upwards of thirty pieces of pottery, all considerably broken but in such a state that many of them can be restored. (5) Possible superposition of three walls, definite status of these to be determined later.

During the grading operations in Compound A a room was located and at Mr. Palmer's request has been partially excavated; the walls of this room appear to be caliche with wooden posts. Several fragments of charcoal which may be datable on the Douglass tree ring method were recovered from this room and sent to Mr. E. W. Haury, Assistant Director and Dendro-chronologist, Gila Pueblo, Globe, Arizona for examination.

(This is a fine report and we certainly thank Mr. Hastings for it. He is doing an excellent job of excavating.)

The vegetation on the Monument (trees, bushes etc) have never had any particular care taken of them; trash, dead timber, etc has accumalated all over the ground; although there are very few completely dead trees or bushes, very near every tree and bush has much dead timber in it; all the mesquite trees have a large amount of mistletoe growing in them and it is thought that it saps the life of the tree. Five men according to the foreman's report have been busy since the inception of the CWA in cleaning out all the dead timber from the trees, cleaning up and burning all the trash and wood on the ground and removing part of the mistletoe from the mesquites. The timber that is suitable is hauled to the wood pile and will be used for fuel for quarters.

During the construction work that has been carried on on the Monument during the past three years, particularly when the old roof was removed from over the Casa Grande, a large quantity of scrap lumber had accumalated and had been stored in a high pile at the wood pile. Employees have been using it for kindling. The pile presented a very unsightly appearance and three men have been employed in cutting it up into kindling lengths and stacking it in neat piles. This utility area now presents anvery much improved appearance.

A truck was rented locally for two dollars a day and has been kept

busy hauling gravel, wood, water for sprinkling, poles for remada repairs etc.

And now I come to that part of this report that gives me the most pleasure. Eversince I have been at Casa Grande it has been a constant source of worry to me that very little in the way of ruins protection has been done except to the Casa Grande itself. Year after year I have seen valuable outlying walls gradually weathering away. No funds in any quantity have been available to carry on any program of protection. This CWA program hasgiven me an opportunity I have long sought and we now have all the necessary approval for placing concrete curtain walls on each side of the low lying walls to stop the capillary attraction of water from the ground into the walls. Lumber for the construction of forms is on the ground; cement has been contracted for and will be delivered in a few days; sand and gravel is being hauled and Tuesday morning we will start on ruins repair that will last as long as the CWA is carried on. We will not be able to finish all of it but we are at least startdd and SOME of our walls are going to be protected. Work is being started on the outside wall surrounding the village to give the workmen experience before we try working around the more complicated house walls inside the village. In connection with this repair work an engineer is surveying the Compound and we are grading it so that all water will be drained away to the outside of the village as soon as possible after it falls. This grading operation will also result in a very much better appearance for the Compound. I am hopeful that the Diredtorwill be able to secure for us money from the Public Works Administration to complete this work after C.W.A. is over. In my opinion nothing is more important at this Monument than the carrying on of this project to completion.

In addition to these major projects we have found time to do a few little odd jobs such as repairing remadas , building a case or two repairs to buildings etc.

In concluding his report to me the Foreman' makes the following statement; ' The 34 men assigned to me are all good men; I have had to discharge only one of them; they are punctual in reporting for work; in accordance with the written instructions issued to them when they reported for work, they are dareful about injuring shrubbery, trees or any other features of the Monument; they take good care of their tools and their subforemen say that they are anxious to do a good job."

A pretty good report it seems to me for a gang of ex-miners,ex-farmers, ex-clerks, ex-mechanics etc.

The timekeeper's report speaks for itself and I am copying it verbatim:

During the month of December, under the Civil Works Administration on U.S. project #2 which comprises work at the Casa Grande National Monument I have the following to report:

We have worked a total of 36 men, who have worked a total number of 3716 hours for a total labor charge of $ 1,980.27. We have spent the following for materials:

Tools - - - - - - - - - - - - - - - -	$ 90.20
Hardware,pipe and fittings- - - -	260.94
Lumber- - - - - - - - - - - - - - - -	168.28
Cement - - - - - - - - - - - - - - - -	509.60
Lime - - - - - - - - - - - - - - - -	89.18
Misc. supplies- - - - - - - - - - -	116.22
Total for materials	1234.42

We have most of this material on hand that has not been used on the CWA program but we will start using it during the coming week.

The men working are very conscientious in their duties performed and are showing their appreciation for ~~our~~ employment by performing their work in a careful way.'

I might say, supplementing this report that the cement and lumber is for the curtain walls for the ruins repair project and none of it has been used yet which does not make the proportion high between the amount expended for labor and that spent for materials.

An indication that there is an upward trend and that all these recovery plans are having a good effect is the fact that four men who have been working on this CWA program here quit last Saturday night to resume their former work in the mines near Superior.

From all of these facts you can see that we are accomplishing many worthwhile things at Casa Grande and when the"lean"days come after all of this relief expenditure is over, as you prophesied they would last month, we at Casa Grande are not going to have to look back and wish we hadn't wasted that dollar. We are getting our money's worth out of these men and could use from ten to twenty-five more advantageously.

We started the CWA paying only 40 cents an hour for common labor. Other CWA projects in the vicinity were paying 50 cents so permission was requested and received from the State Civil Workss Administration to raise our rate to 50 cents. When the timekeeper informed the men two days before Christmas that their pay for that week was to be 50 cents and hour instead of 40 cents one of them remarked 'Gee, there is a Santa Claus after all isn't there.

I was interested in knowing just what the men thought of this program of providing jobs for them and so I asked four of them to write for me an answer to the question - What Benifit Has This Program of the President's Been to You. Their answers follow:

1

'I have derived numerous benefits from both the Public Works Program and the Civil Works Program. Since my employment in September I I have been able to keep out of debt, have provided for my family and

been able to keep my children in school. The six hour day has proven very satisfactory; it provides ample time for transportation from home to work and still leave time to spend at home with the family.'

#2

'This job under the Civil Works Program has meant much to me. I was a mechanic in partnership with a brother-in-law in a garage business. Business fell off to such an extent that there was not sufficient to keep two families and it was necessary that one of do something else. It fell to my lot to be the one. I had been out of work entirely for four months and as I had no income at all I do not see how my wife and self could have gotten along this winter.

Since I have been working on this job and getting what we needed to live I feel very much better and have a very much better outlook on life. In every way this work has been a great help to me. I have been working nearly a month and hope it will last for some time.'

#3

'I went to work on The Public Works Program at Casa Grande National Monument about October 15th. I had been out of work before I got this job about two months. I have six children to support and if I hadn't have gotten this job I would have had to have taken them out of school. They were all out of chlothes and I had been making just barely enough to get them food to eat. During the summer my son, nephew and I worked for $7.50 a week. This was just enough money to get groceries for my family of eight. We worked from 10 to 11 hours a day; I sure enjoy working six hours a day because I can spend more of my time with my children.

Yours for a six hour day.'

#4

'Just a word of appreciation for this employment plan. As a worker under tis Civil Works I have received my first regular employment since 1931. Men can at least hold up their heads now instead of seeking charity. I hope everyone is as appreciative of this program as the laboring man.'

(I believe that the program is appreciated by these men)

And so the work goes merrily on and we are all doing out utmost to get good jobs done. Mr. Langley has inspected us and given his approval to the landscaping features of the program and Mr. Attwell has done the same for the Engineering Division. They have both given us a lot of valuable advise. After all is said and done what would we do without the valuable cooperation of these two Departments.

A little nature note in conclusion: one of the men who is camping on the Monument tells me that he has seen both red and gray fox and badger near his camp. I was surprised to learn that we had them on the Monument. There are many dove and quail around also.

Now that this report is finished I can go back to work.

Here is a report from Walter Attwell as to what he has been doing for the last four or five weeks:

"Dear Boss:

"My activities for the month of December were centered mostly on establishing Civil Works crews in the different Monuments. The month was started at Bandelier National Monument with a 204 man C.C.C. camp and 104 man Civil Works crew.

"The C.C.C. camp is under the supervision of E.H.McGill. Its work is the construction of a truck trail into Frijoles Canyon, the construction of a cliff trail and trail to the Ceremonial Cave, and the re-conditioning of many fire trails.

"The C.W.A. crew is under Mr. A. Lieske. That crew is scheduled to widen the entrance road from 12 feet to 22 feet, fence detached sections of the Monument and construct water and sewer systems.

"At White Sands National Monument, a 104 man C.W.A. crew was organized with Tom Charles as Superintendent and Peter Rosé as Engineer. The work at the Sands consists of the construction of three miles of entrance road, four miles of roads through the sands, surveying the Monument boundary, location of limits of the sands, development of water at several places within the boundary, development of two parking areas, taking topography, and location of points of interest as Red Lakes, groves of trees, ruins, etc.

"I established a 21 man crew at Gran Quivira with C.A.B Scharf as foreman. The contemplated work consists of regrading one mile of entrance road, plating the sandy places with caliche and clay, constructing a parking area, cattle guard, eradicating old roads and trails, and the establishment of the west boundary.

"A twenty-six man crew, under Foreman Homer Farr was organized at Capulin. There I expect to regrade the three mile entrance road, slope the banks, construct a three quarter mile rim trail around the crater and a trail down into it; also to establish the boundaries.

"Montezuma Castle has rated a 43 man crew on its entrance road, revetment work and ruins excavation. The road work is well under way and two bad curves have been improved. Earl Jackson, archaeologist, with ten men is opening up the ruins west of the Castle. His work has impressed me as being very careful and thorough.

"After leaving Field Headquarters on February 17 and being in the field for 10 months, I was in the home office one day and home three days and then returned to the field for another season.

Walter G. Attwell."

Walt witholds the fact in his report that Bunnie came back into the field with him for a three weeks trip, to the very great pleasure of our Southwestern Monument folks.

Here is a new man's angle on one of our jobs. It is a letter from Laurance Cone, a new Landscaper on the White Sands job, and incidentally Tom Charles' monument steals another slice of publicity in this report.

" The work is going on well with the exploration party bringing in some fine things every day; things that are going to prove great attractions, especially to the many people who are going to come here to view

these Sands. Mr. Charles is surely the personification of 'stick-to-it-iviness' as far as these sands are concerned and he is glowing as each day's new features are discovered that may inspire some new publicity. During these last few days I have been going out into the Sands far enough to keep ahead of the engineers and their plans for the road, and each day I have found added beauty in this new National Monument. I have been trying to get a series of pictures which may be sort of a before and after set of records; the first ones have been more or less successful. Along with that I am going to keep a record of the work as it progresses and that should prove an interesting record when the work is completed.

" The road into the Sands is coming nicely and with it also is developing added interest on the part of the Alamogordians, for I really think that they have been somewhat timid about the proposition and fearful that their Sands might be spoiled. It has been my distinct pleasure to inform them that my special job is to preserve all of the natural features of the Sands and to see that none of the beauty will be taken away. I have been asked numerous questions concerning the work and what is going to be done to the roads when there is a sandstorm, and many others too numerous to mention. It is giving many of them something to talk about besides the weather and whether the eight fifteen will be on time tonight or whether it will be its usual half hour late.

"I was especially interested in a paper we received yesterday in regard to the preservation of all natural features of the Monument, for it will make the Landscapers place more secure in their minds. I have several times had to remove plants which were in the way - plants that were going to prove useful in later planting, and the looks of patient pity that I have been given, have been more amusing than some of their humor.

" I was in getting a hair cut the other day and two cow punchers were talking. One said: 'Well Bill, whatcha doin' now?' The other replied: 'Nothin'. Then the firs' said: 'Where at?.' To which Bill made the brilliant reply: 'Over yonder!'

"Things like that give you some idea of why I am growing increasingly fond of this place.

" Another thing that I am going to do while I am here is collect as much of the natural plant life as I can find and press it into a book to go with my account and pictures. Each additional item which will be collected will tend to make the report more interesting for those who look over the record in the future.

Laurance D. Cone."

These observations from a new-comer in our ranks are mighty interesting for they stir up our own ideas on our work. Much luck to Mr. Cone in his work.

Ass't. Sup't. Report(R.H. Rose):

My activities during the month have centered principally about the planning of specific projects to be undertaken in the revised Civil Works set-up in which some positions have been reserved under the Historical Division.

At Aztec Ruins National Monument (1) cataloguing the museum collection; (2) preparation of measured drawings of the pueblo; (3) extensive

repair of pottery and other museum materials; and (4) repairs to ruins are included. Cataloguing is being done on the standard form cards. As a project, this recording of all known data about each museum piece is one of the most important.

At Casa Grande National Monument Historical Division projects include (1) cataloguing the museum collection; (2) preparation of label and chart material for the Civil Works staff in the Berkeley laboratories; (3) archeological survey of the monument; and (4) rearrangement of the museum collection and manufacture of additional museum cases. The field work is engaging practically all of the available time of supervisory personnel because of the technical nature of such work, and inside work is being pushed as rapidly as possible considering this monument is experiencing a very heavy tourist travel during this time of year.

The additional cases are being designed such that the artifacts and pottery can be displayed with better effect. The cases are being made 22 inches wide at the bottom on a solid 10 inch base. They will stand 6-feet tall and taper to 5 inches wide on top. This will give something of the same effect as adjustable shelves of wide dimension at bottom and getting less toward the top of the case.

The museum is being arranged such that greatest emphasis will be placed upon the Ho-ho-kam. Red-on-buff pottery, cremation burials, and other exhibits peculiar to the resident peoples of the valley regions for some two thousand years will be shown in the main exhibit room.

Polychrome pottery and earth burials will be features of the next exhibit room in which the so-called Classical Period will be emphasized. It appears that after the Ho-ho-kam had occupied the valley regions for many centuries they were joined by a true pueblo people from the north. It is the period from the time of appearance of the newcomers until the final abandonment of the villages or compounds that will be emphasized in the second exhibit room.

Modern Indian materials now on display in a main exhibit room will find a place in the Preparation Room while the room now given to modern exhibits will house the textiles, ornaments ceremonial objects and other cultural materials.

IN GENERAL

This report has run into greater length than we expected. All I need to say in closing, is that we have been especially blessed with good weather all over the district during the month of December and our Civil Works projects have profited by it.

Visitors are picking up at the Monuments where we have winter peaks and it looks a little like we are back on the road to the days before the depression.

Cordially,

Frank Pinkley

Superintendent.

CHACO CANYON NATIONAL MONUMENT. Hurst R. Julian, Custodian, Crownpoint, N.

Proving we must stick to alphabetical order, Julian's Chaco Report takes a "Z" position because we didn't include it in alphabetical order. "Dear Boss: I am writing this report two days earlier in the month than I usually prepare the monthly report. I have some time now and when the 25th comes I'll have a great deal on hands.

"I wish you would look over the mailing list for our completed and accumulated monthly report and see if the Chaco is on it. I believe that the Chaco did not get the last two issues.

"The visitors have been rather few this month, although the roads have been in much better condition than they were last month. Too, perhaps I have not seen many of them when at least some of them arrived. My count for the month is 208, the register shows but five states represented, Colorado and New Mexico people being ### in the majority.

"The Archeological Reconnaissance, Civil Works Administration, University of New Mexico, School of American Research, Museum of New Mexico, party arrived the twenty first to go to work on a drainage plan for Chetro Ketl. It will in all probability be worth while, in fact I am somewhat enthused over the prospects of accomplishment which this work shows. Gordon Vivian heads the group.

"As to C.W.A. in general, nothing has yet been done. First there is the matter of clearance of the funds and plans through the Field Office. This problem is unduly complicated, as is usual with anything that we undertake in the Chaco, by the land situation. Then there is the matter of the definition of the term "local" in the instructions to secure the men from the "local C.W.A." Both San Juan and Mc Kinley Counties claim to be the "local" administration. Both administrators have received instructions to furnish the Chaco with men. Rather than to antagonize either faction, I simply put the matter up to the State Administrator, and asked them to furnish the men, when, if, and as, we need them.

"We can get good out of the appropriation because we can get a few Indians and cow boys from the immediate region to come here and camp and do some of the work. People on charity rolls in either county will find it hard to supply themselves with tents, bed tarps and bedding, cooking utensils, and in addition bring in enough fuel and food to run them for several weeks, and on top of that, bring them in from 60 to 160 miles.

"Mr. Vogt has had some success with such arrangements at El Morro where he has drawn his men from a ranching community, where every man can cook, has camping equipment, and has slept out of doors in all kinds of weather for many years. Also there is firewood at El Morro which helps in weathering any storm. The parks have had a measure of success with the system where it is not 100 miles to the nearest grocery story. Also firewood an d shelter were available. Our local Trader, Mr. Springstead, can always be depended upon to assist us in every possible way. He will find it hard to supply sufficient food at reasonable prices.

" Fortunately for all of us in this region, we have Jim Hamilton assigned to our projects. The Engineers Office may have a better man but I don't know how it would be possible to secure one. With him to head our plans and undertakings, it is with a great deal of assurance that we go forward.

"I have watched Johnwill Faris and his organkzation click along as nicely as though it had been in operation forever. If we get started in the Chaco, I would like to lure some of Johnwill's organizers away from him. However, in all probability, it would be necessary to take Johnwill himself in order to get the desired results in the Chaco. (note; I'm not trying to borrow money from him either). Hurst Julian.

As the press is about to close, Mr. Palmer and Mr. Rose report that arrangements are complete for transferring a fine collection of cultural materials, chiefly of the pure Red on buff, for the museum at the Casa Grande National Monument. The collection was gathered by Carl A.Moosberg, Scientific Aid of the Field Station, U.S.Dep't. of Agriculture at Sacaton, Ariz. It came from a site being destroyed by agricultural developments. Very careful field notes are available on this fine collection which adds greatly to its scientific value. The museum is being arranged for display of this material along with our present collection. The cataloguing of the entire Mooseberg collection will be done at once after transfer.

[illegible]

[illegible]LENT OF THE INTERIOR

NATIONAL PARK SER[illegible]

[illegible] OF PERSONNEL

Southwestern National Monuments National Park for the Month of December, 1933

	[illegible] Month		This Month Last Year	
	Appointed	Non-Appointed	Appointed	Non-Appointed
[illegible] beginning of month	17	41*	23	0
[illegible]	3	13	1	13
[illegible]	20	54	24	13
[illegible] separations	0	52	1	13
[illegible] employees close of month	20	2	23	0
[illegible]mber of promotions during month	0	0	0	0
[illegible]gregate amount of annual leave taken	0	0	15	0
[illegible]gregate amount of sick leave taken	0	0	0	0
[illegible]gate amount of leave without pay	0	0	23	0

* Adjusted to include workers on PW projects at Aztec Ruins National Monument, omitted from November report.

SUPPLEMENT TO THE
DECEMBER REPORT OF THE SOUTH-
WESTERN MONUMENTS
****

(Dealing with people, "Shop Talk, and news of interest)

MUSEUM OBJECTIVES
(R.H.Rose)

In the Supplement of our Report for July 1933, a list of facts developed in National Parks museum work is found. Of particular interest is the first which states:

> "In the national parks the real museum is the out-of-doors. Man-made museums, here, are to be regarded as a species of elaborate label"

This objective has developed out of the fact that trips afield in parks and monuments offer rare opportunities to 'discover' facts and theories first hand whereas in schools and classrooms we learn these things second hand. Too, we realize in the national parks and monuments we can teach these same facts avoiding some of the undesirable features of classroom instruction.

Thus, in the national parks we seem to give the out-of-doors the place of chief importance. Museums are regarded principally as means to an end; that is, the function of the museum is filled if through labels, specimens, charts and diagrams, greater interest and appreciation are developed in the natural wonders termed "the out-of-doors". As we think this problem over we feel it is as it should be . Thus the parks museums can be made to carry out their purpose as 'species of elaborate labels', or 'stimulants to appreciation and understanding through knowledge'.

Modification of this Objective for Archeological Museums.

In regard to archeological museums, I would like to raise the question as to changing this objective which has been quoted above. Doesn't the fact that SINCE WE HAVE GATHERED THE BURIALS, POTTERY, TOOLS AND WEAPONS AND OTHER MATERIALS FROM THE SITES OUT-OF-DOORS AND PLACED THEM IN OUR MUSEUM STRUCTURES, mean that we have moved some of the "Out-of-Doors" into the museums and thereby increased the importance of the Museum in relation to the whole Museums-Field Trip layout ?

I bring this question up for this reason: If the fact is sustained that the museum does occupy a relatively more important position, then

A.

we must recognize the fact in our installation plans,

PARK MUSEUMS AS SPECIES OF ELABORATE LABEL

We would gather from this heading that the function of the park museum is to increase the visitors' appreciation and knowledge of the out-of-doors which he contacts during his stay in the park. The museum accomplishes this by means of labels, charts, maps and specimens. Consider the Norris Museum in Yellowstone. Obviously, the geysers of the great Norris Geyser Basin are the central theme of interest. Yet it will never be necessary to 'move any of these geysers into the Norris Museum' in order to preserve them. On the other hand, the entire object of the Norris Museum is to kindle appreciation and perhaps inspiration through increased knowledge. The labels, diagrams, pictures, charts, and specimens, with the assistance of the museum attendant, are the 'tools' used in developing this knowledge and appreciation. At best, these charts, labels, etc. will only supplement those great natural wonders they seek to explain. Such museum is indispensable; yet what would such museum be without the great natural phenomena that are observed in the vicinity ? Thus, I believe under these conditions, the museum, though invaluable, is a means to an end, and is not an end in itself. Getting this idea clearly in mind is necessary for the understanding of the points to follow.

ARCHEOLOGICAL MUSEUMS AS A PART OF "THE REAL THING" IN ADDITION TO BEING "A SPECIES OF ELABORATE LABEL"

Picture what happens in assembling an archeological collection. The pottery, burials, tools, weapons, textiles and other cultural,materials, have been taken from their original position and deposited in our museums. The perishable and fragile nature of these cultural materials makes it very unwise to attempt to preserve them in situ in the dwellings. Thus, we have a situation somewhat akin to what we would have if about half of Yellowstone's natural wonders had to be collected and put into a museum building to protect them from disintegration. Thus, if we had to do just that in Yellowstone then the museum would increase enormously in relative importance; we could no longer class the museum merely as "a species of elaborate label"; it would be that and a whole lot more.

Then, I wonder if the point is clear in respect to Archeological museums ? The more of the materials around which the primary interest centers, we have to bring into the museums, the more unbalanced the statement regarding museums as 'species of elaborate labels' becomes. Dwellings aren't the only features of prehistoric life that are of major interest and importance. Evidences of arts, crafts, ceremonies and other features of their daily life are just as interesting and important. As a matter of fact, the buildings and cultural materials as means of interpreting past life, become the relationship we build upon. And

here we find the museum assuming a place of importance equal to that of the dwellings themselves. We also find the museum becoming more and more an end initself; the museum would continue to be an entity in itself even if the ruined walls of dwellings by chance vanished. It would appear, therefore, that in archeological parks and monuments the importance of the museum forges to the front line with the dwellings themselves. This fact, it seems, would still hold even if we were to go intensively into the restoration of life-size figures in the act of going about their everyday duties of life. Suppose we did this on a large scale, THE MUSEUM WOULD CONTINUE TO BE THE DEPOSITORY FOR THE PRECIOUS TURQUOISE AND SHELL ORNAMENTS AND CEREMONIAL OBJECTS, TEXTILES, POTTERY, TOOLS, WEAPONS, AND OTHER CULTURAL MATERIALS. Hence, getting down to the case cards, the museum still holds its place of importance alongside the field trips themselves in archeological monuments.

I should not neglect to state that the objective quoted at the beginning of this discussion still applies in a large measure. However, in archeological monuments we want to realise that THE REAL MUSEUM IS THE MATERIALS EXCAVATED AND DISPLAYED AS WELL AS THE DWELLINGS.

Finally, we might say that in the case of parks museums the museum becomes a type or 'species of elaborate label' and the real objects of study are the wonders of nature or the 'out-of-doors'. In the case of archeological museums such as we have in one park and many monuments, the museum becomes (1) in part the 'thing itself' as well as (2) a species of elaborate label.

It would appear, therefore, that although MOST PARK MUSEUMS HAVE ONE PRIMARY CHARACTERISTIC IN BEING SOMEWHAT OF A SPECIES OF ELABORATE LABEL, THE ARCHEOLOGICAL MUSEUMS HAVE A DUAL NATURE.

RELATION OF THE DUAL CHARACTER TO INSTALLATION PROBLEMS.

We are now coming to the principal reason for outlining this discussion, namely, the manner in which this dual character must be taken into account in installations.

In view of this dual character of archeological museums it seems we should have two types of installations:

A. In the one type the major stories should be the keynote. These should be told graphically with charts, maps and pictures. [illegible] ; label text should be included but kept to a very minimum. Such subjects for charts must be selected most carefully and the methods of portrayal be most carefully done. THE FAILURE OR SUCCESS OF THE INSTALLATION WILL DEPEND ENTIRELY ON HOW WELL THESE TWO POINTS ARE OBSERVED.

B. In the second type, the cultural materials themselves must dominate. This is the same as saying that in the Norris region, the natural phenomena in the out-of-doors dominate. The explanatory materials intended to build up proper perspective and kindle appreciation through increased knowledge, are in the Man-made museum structure. Thus, in archeological museums the textiles, turquoise ceremonial materials, and other remains of the culture, are in part equivalent to the natural phenomena of the Norris region.

Limited room space in monuments museums makes it difficult to carry out this plan of installation to the fullest. Granting that sufficient space were available, the installation would be pictured something like the following:

1. The first exhibits contacted by the visitor would be chiefly those which orient him to the subject of archeology. Large charts and maps designed to give the visitor the proper perspective would be here and there in the room, and especially in that part of the room first contacted. A CHART, FOR EXAMPLE, ON "THE ANTIQUITY OF MAN ON EARTH" ACCOMPANIED BY ANOTHER LARGE MAP-CHART ON "THE ANTIQUITY OF MAN IN NORTH AMERICA" would comprise ideal subjects in that portion of the museum the visitor first contacts. This would hold as much for the self-guiding museum as for our monuments museums where every party of visitors is personally conducted. CAREFULLY NOTE THAT SUCH SUBJECTS AS ARE SELECTED OCCASIONALLY TO CREATE PROPER PERSPECTIVE MAY NOT REQUIRE ONE SCRAP OF LOCAL MATERIAL TO SUPPLEMENT THEM.
    a. Tree Ring Charts (Supplementary beam material from local ruins would work in to advantage here).
    b. Various methods of pottery making explained. (This would require examples of paddle and anvil and so-called coil ware in various stages of manufacture. Perhaps not more than one finished vessel of each of the types would be required.
    c. Exhibits Foods and their preparation.
    d. Theories on Migration Routes of Mankind
        (Observe here that the stories are primary here while actual local materials are secondary, or are not required at all.)

2. Perhaps there will be as many as a half dozen of these more general exhibits designed to give the proper perspective. WE WILL THEN HAVE A SECOND TYPE OF EXHIBITS IN WHICH THE CULTURAL MATERIALS THEMSELVES ARE DOMINANT. In this type of exhibit more detailed stories are emphasized-stories dealing strictly with the the particular culture in the vicinity. Visitors then contact two types of exhibits; (1) the general type designed to build up a perspective of the whole field; and (2) the particular type designed to give more intensive knowledge of the local culture. D.

Where museum space is limited it is necessary that the cultural materials and the illustrative charts, maps, and specimens be housed in the same rooms. It is possible to work out a very effective installation letting the actual museum materials be woven into the story as frequently as possible. However, if there is a vast amount of museum material for display, the quantity may be so great as to cut down on the effectiveness of a display where, for example, we are wanting to"describe the various methods of making pottery with examples of finished vessels made by each of the methods". One vessel of each kind would suffice here. It wouldn't help matters as far as this one story of pottery making methods is concerned to have two rooms full of pottery there to illustrate the one point. The bulk of the material must be used in some of the other stories. For example, a display of VARIOUS TYPES OF POTTERY DECORATION, THEIR GROWTH AND DEVELOPMENT AND SIGNIFICANCE, or INTERPRETATIONS OF VESSEL SHAPES would by their very nature require many pieces of pottery . Here we would make use of as many different designs of vessels and of as many types of decorated ware as would contribute to the story under consideration.

It seems that in addition to (1) installations in which the illustrative material is diminant and the artifacts secondary, we should have (2) types of exhibits in which the artifacts are primary and the illustrative material brought in as a medium of organization of this material. Where space is limited, we must make the two types of installation coordinative. When such installation is completed, the dual nature of the museum will be apparent as one studies the organization. In one space will, for example, be a display on "ANTIQUITY OF MAN IN NORTH AMERICA" in which no local artifacts are used; or a big chart and map ON "DATES OF CONSTRUCTION OF VARIOUS PREHISTORIC RUINS". Studying these particular exhibits will show no museum materials are used to supplement the chart and map. However, look in another section of the room where the subject of the exhibit is "DESIGNS AND DECORATION OF RED ON BUFF POTTERY AND THEIR INTERPRETATION". To our surprise we may find every scrap of red on buff ware in the museum was used and then no overcrowding was evident. It just narrows down to two types of exhibits; one type which drives home certain broader facts which improve the visitors' perspective of the whole field of archeology; the other the type of exhibits which try to bring out in the clear certain facts about the local cultural materials.

It appears that if we regarded the archeological museum merely as a 'species of elaborate label' to supplement the field trip among the prehistoric dwellings, and neglected to consider the importance of the irreplaceable ornaments, textiles, and cultural materials generally, we wouldn't be making the best of our opportunities. I leave the thought here that where the park museum may be a 'species of elaborate label with the out-of doors as the real museum', the Archeological Museum is that, and still more. The Archeological Museum encroaches

reatly upon the position held by the natural phenomena themselves n the national parks. If this viewpoint is sustained, it necessarily ollows that proper museum installation in archeological museums ould require a knowledge and understanding of this relationship.

ELATIONSHIP BETWEEN ARCHEOLOGICAL MUSEUMS INSTALLATIONS AND THE VISITOR:

In regard to archeological museums installations the problem arises as to how the general exhibits will be handled in, let us say, a half dozen installations. Considerable duplication will result in the different museums, especially with those exhibits designed to give the visitor a broad perspective of the whole field of archeology before taking up the special local story.

If the visitors to a particular archeological monument visited just that monument, and no others, the problem would be simple and it follows that duplication of exhibits and efforts would be very worth while. In Southwestern Monuments, we do not believe that more than 10 percent of our visitors in any one season visit more than one of the national monuments. This means upwards of ninety percent are being contacted the one and only time during the entire season at any particular monument. The ten percent who have visited other monuments museums, it is true, will recognize some duplication of general materials. However, it appears that the importance of giving the 90 percent a complete story, perspective and all, outweighs the objections that 10 percent of the visitors will be getting some of the general stories twice or three times.

Construction of new connecting roads and improvement of old ones will mean a great increase in the number of visitors who, in the course of a season, will visit several of the monuments. However, I wonder if just now, this is a serious problem ?

A survey of the number of visitors at any one monument who have visited one or more others, would help us solve this problem. Just now, I should feel it would be unfortunate to deprive the 90% of the visitors who visit only one monument in a single season of the benefits of these general archeological stories designed to give them a good perspective.

One approach to this problem would be variation in the methods of graphic portrayal of the same general thought at the different monuments. In this way, the visitor who has been at other monuments during the journey, will find the same information presented in another way. Such varied presentation might continue to fascinate the visitor as well as fix the same general facts more firmly in his mind.

F

When we stop to consider the matter, we find some interesting examples of repetition in our museum work. I want now to consider what is true in the case of several national parks.

Let us take as an example all national parks in which the SCULPTURE OF MOUNTAINS BY GLACIERS is at least a major, if not the outstanding, story. Tackling this subject as an academic problem in logic without reference to any particular mountainous region so sculptured, the following facts are developed:

A. Glaciers transform V-shaped, stream-cut valleys into U-shaped troughs.

B. Mountain glaciers originate in enormous snow and ice packs which form on mountain summit areas when the average annual dissipation of the snow and ice by melting and evaporation is less over a period of years or centuries than the amount which accumulates.

C. Terminal, medial and lateral moraines are found in glaciated mountain valleys and represent material excavated and moved by glaciers.

D. Serrated crests, cirques and hanging valleys are expected in mountainous regions that have been glaciated.

E. Glacial polish and striae are usually found on the rock surfaces sufficiently durable to have preserved them.

Points A, B, C, D, and E, arent peculiar to yosemite, glacier, or Rainier national parks alone; these points are facts that are true for all glaciated mountainous regions anywhere on Earth. In short, these points represent general facts . All museums in such regions usually attempt to drive home these facts through (1) relief maps and pictures; (2) diagrammatic cross-sections; (3) labels; and (4) specimens, and best of all, actually visiting the places where these facts can be observed first hand.

In (1) Yosemite, (2) Glacier, (3) Rainier, (4) Mount McKinley, (5) Rocky Mountain, (6) Grand Teton, (7) Crater Lake, and perhaps to some extent in (8) Yellowstone and (9) Lassen Volcanic, museums would have to stress certain of the fundamental points common to glaciation in all of them.

Consider Yosemite and Rainier; as far as the exhibits go which explain the way glaciers modify a region riven with stream-cut valleys, IDENTICAL GENERAL FACTS ABOUT GLACIERS WILL BE BROUGHT OUT IN MUSEUM INSTALLATIONS IN BOTH of these great parks. This seems entirely

justified so long as so few people who visit one museum also include the other in the course of a travel season. Even then, it might be to the visitors' advantage to have some of the same fundamental facts brought to his attention a second time. The psychology of the statement just made is this: (1) knowledge would be increased through repitition; and (2) visitors often take a delight in seeing certain facts with which they are already familiar. A familiar face in strange surroundings is always a source of joy. I might meet a fiend on the streets of Phoenix and take rather casual notice in recognizing him; but Oh Boy, what a meeting it would be if by chance I met up with him in the heart of Africa, or other strange place! Thus, in regard to the Story of Glaciers at least, we find a great deal of duplication. Repetition not done to excess may be a pillar of strength in our educational system rather than the symbol of weakness. If we unconditionally avoid repitition in our parks and monuments museums, we might be neglecting to use a psychologically sound method of teaching facts th the layman. Then there is the other extreme to consider-that of repetition to the point oftiring the learner. In this case, variation in method of presenting the same facts may be the correct answer.

The results of duplication of general exhibits come down to these points when applied to the monuments:

A. If we duplicate material of a general nature intended to build proper perspective:
   1. About 10%, and in extreme cases 25 or 30%, of the visitors will find this a duplication of what they saw at another monument or park visited in the course of their summer's travels.

   2. About 90%, or in instances only 70 to 75%, will have the opportunity to visit one, and only one, of the several museums. For this great majority, there is no factor of duplication. IF THEY DON'T GET THESE GENERAL PERSPECTIVE-BUILDING PRINCIPLES PORTRAYED AT THIS PARTICULAR MUSEUM THEY MAY HAVE THE BAD FORTUNE NEVER TO GET THEM.

B. If we eliminate duplicatory explanatory material intended to build perspective, results are:
   1. About 70 to 75%, and perhaps even 90% of the visitors must suffer the lack of those exhibits which (a) orient the particular culture in the whole field of archeology; and (2) tend to give a museum a definite beginning idea and an end. Museums without such would appear to have neither beginning nor end.

   2. The remaining minority of 25 to 30 %, and often as low as 10% would be served through this absence of duplication. As pointed out above, duplication or repetition, skilfully

put into effect, may be turned into a powerful and psychologically sound; method of appealing to the layman. Remember the thrill that comes from meeting familiar faces in strange lands.

In order to make the repetition of general perspective-building installations in several museums psychologically sound for the minority of repeators as well as the majority of 'one monument' visitors, we should be guided by the following general rules:

1. Hold the number of these general perspective-building exhibits to a minimum; select carefully only the most important lead ideas needed for orienting the particular culture under study. So many of our visitors are 'one monument' visitors, it seems they would suffer if we left out the general exhibits altogether and merely concentrated at each monument on the local culture represented there.

2. Adopt as wide variation of installation and portrayal of general facts as possible where such facts are important to several museums at the same time. Repetition may often prove stumulating to the visitors' appreciation and desire for knowledge, rather than a bore.

Unless we are very certain that 50% or more of our visitors at one archeological park or monument visit at least one or two more in the system, it seems we would be making a grave mistake if we omitted all perspective-building general material and emphasized only a particular part of the story at each monument.

Before abandoning the idea of general exhibits repetition in several monuments and parks shouldn't we first strive to attain pleasing variety in repetition THEREBY TURNING WHAT MAY ON ONE HAND BE A WEAKNESS, INTO A FEATURE OF STRENGTH ?

I fear if we limited museums development at individual monuments such that the visitor who travels from one place to another carrying from each monument only a part of a completed story which can only be secured by visits to a whole series of localities, we will have let ourselves be governed by the educational needs of the minority. If we could but formulate a plan of complete stories at all monuments and parks, making each monument or park a complete story, varying such repetition as will arise such that visitors will feel that "they are meeting old fiends in new places each time", perhaps we could make repetition a power and advantage rather than something to be avoided. If we are able to solve the problem in this way, rather than emphasizing a limited part of a story at each park or monument, we will have gained in two ways: (1) Each museum will deliver 100% service to its 75 to 90% of all visitors who may never visit another museum in one season; and (2) the 25 to 10% minority will be benefitted by this repetition if such repetition is varied and made psychologically sound.

At each monument we should emphasize in our museums particularly those things WHICH DISTINGUISH IT FROM ALL OF THE OTHERS. If we stress these outstanding qualities of individual archeological parks and monuments , letting such exhibits be central in importance, we can give each museum character of its own. It's true that the general exhibits must not be so extensive that the individual character of the particular story is lost. By taking care to select a minimum number of general exhibits subjects and by using all local cultural materials possible in the local stories to be emphasized, we ought to be able to work out the proper installation at each park and monument.

R.H.R.

Here Bob turns this stencil over to me, Chief, to go ahead and finish up. It seems to me he has said some things in the above article which ought to cause some discussion in the Educational Division. I am quite sure there is a difference between our Monument museums and the average Park museum. It might be worth while, if we could get hold of a specialist who would be capable of doing it, to study and experiment with the people who go through these museums. Do you know whether anybody in our Service ever held a stop watch on one of our museums long enough to find how long the average visitor remained in it and then rearranged the contents to see if that time could be lengthened? It seems to me some experiments along that line might produce some interesting results. Did anyone ever try shifting a label so it didn't apply to the speciman to which it referred, and see how long it was before the first visitor caught it? Did anybody ever seek to analyze the reactions of the first thousand visitors through a museum room whit an idea of changing the displays on the basis of the results? It occurs to me that we have been figuring out how the visitor ought to react to our displays and it would be much easier to go ask him and study him and find out how he <u>does</u> react and then change our methods to fit his reactions. Visitors are funny folks on the whole; I've been working with them thirty years and they can still spring a new trick every few days.

Department stores pay men big money to study the flow of crowds and figure out why you can sell more soap on the right hand side of a store than on the left; to find out why a crowd circulates to the right instead of to the left, and so on. They must have faith in the results of these studies for they risk hundreds of thousands of dollars on them. This is a very real branch of research, and to my mind, a very important branch, and I wish we could call upon the Branch of Research and Education for a man who could come out here into the field and study each of these museum problems of our for two or three weeks, giving us some concrete facts on which we could base our methods of display. Big businesses have a way of solving these problems; let us take a leaf from their experience.

J

And here is what Hugh Miller contributes concerning the paper end of the Civil Works program:

"This report finds us embarked on our Civil Works program and well out to sea. In certain respects, particularly in the preparation of papers, it may fairly be said we are at sea. The purchase proceedure required under the Civil Works allotment seems to be a matter of difficulty, stress and bitterness at almost every moment, and on almost every monument. While it is admittedly a bother to secure competition on small purchases, the requirement may be simply met by securing verbal quotations, either over the telephone or by personal contact. It isn't beneath your dignity to get prices from at least three dealers even on relatively small purchases. If the dealer doesn't want the business badly enough to confirm his quotation in writing, he doesn't deserve it; and there's nothing complicated about writing up an order on Form 10-131 to confirm your purchase from the man whose quotation was the lowest. It's true that if you were going to buy yourself a hat, you would just drop in at a brother Elk's place of business, select something from the stock he carried, and pay the price asked without quibbling. Socially this method is more graceful, but haven't you often, even in personal matters, felt that it was a little shiftless?

"The Civil Works program is an opportunity to get many things done that might otherwise have been postponed for years. We are all wrong if we resent regulations which compell us to spend the allotted funds in a business-like way. Even if we should belong to the tribe which flatters its ego by tirades against Government red tape, it is well to remember that the slight inconvenience of securing competition is nothing compared to the embarrassment which results when a voucher covering a purchase made in good faith is disallowed."

Tom Charles broke into print with his White Sands last month. Here is what H. S. Hunter ran in his column in the El Paso Times:

"Tom Charles, Custodian of the White Sands National Monument, is up in the air--up somewhere about the seventh heaven of delight. Here's a jubilant spasm from him:

'I want to cry on your shoulder a minute. We have finally gotten the promise of the development of the Great White Sands. You will remember that some ten or fifteen years ago, you and I, and Cap Simons, Dr. Woolford, Moe Stevens and a few others banded together to get some way to cross these silvery sands.

'Well, we've got 'er. Superintendent Pinkley stood up on one of the highest peaks of the Sands yesterday and said: 'Tom, we are going to build a road across there.'

'Think of it! The long promised trip that you have agreed to take and we have agreed to give is now in sight. Too bad that Dr. Woolford and Moe Stevens have gone across those other sands some time ago. But maybe you and Cap. Simons can come up and take the first trip over the new road out to where the sands are really good.

'Work is starting at once. Three miles of road will be built into the Rincon of the Sands, then some four or five miles of plated highway will be built back over the sands themselves. Gee, what a sight,

what a thriller! Even Tom Boles with all his entrenchment in the Caverns will look with envy upon us when the landscape man gets his plans worked out and this scenic wonder is put on display.

"I am sure you will be pleased to know that your efforts have finally been rewarded: call Cap. Simons and tell him that we want you both to come up and see the thing, America's Greatest Playground, from the cushions.'

"O.K. Tom, now here is an extension of your idea, see what you think of it:

"When you get your road all fixed, your other improvements made, and everything shipshape, let us know and we'll organize a Sunday trip up there, getting everybody to go who can possibly get away. We believe we can assure you of three or four hundred cars from El Paso if the weather's decent."

Needless to say Tom has accepted the offer and we will all look forward to the big day when the road is finished and the parking grounds are ready.

Gay Rogers is our Payroll and Personnel clerk here at headquarters now. She has to wrestle these bum time sheets that come in through the mail into shape and check them up and down and crosswise and then work them up into a pay roll and draw the pay checks to cover them, - - and if she makes a mistake on a pay check, Hugh goes to jail; isn't that something to have hanging over your head? Gay says she likes her work and it would be pretty easy if the boys would take a few days off and read the instructions which we have sent out to them so the stuff wouldn't come in here all messed up. These boys who are so intent on throwing dirt and can't be bothered with making forms out right are going to wake up with a lot of rejected vouchers on their hands and they will have to settle with the merchants personally. Being in a hurry is no excuse to those boys over in the General Accounting Office; you may be in a hurry but you had better be right or your vouchers will get suspended.

Another new man makes his bow this month too. His name is Bud-long and since his first name is Bob and we have one of them around here, he goes under the name of 'Bud.' He is a regular fellow and has been hitting the ball like nobody's business every day since he has landed. Brownie and Gay and Hugh and Bud have handled this Civil Works business up to now and I am proud of the way they have done it. No pay roll has laid in this office overnight when Hugh had checks on hand to pay off.

The other day the Disbursing Clerk over in New Mexico finally came across with her blank checks. The checks arrived here at 11.00 in the morning and five hundred of them went out in the mail that night. You have no idea how much checking and cross checking all this takes. If, with a clerk, a stenographer and a time keeper on some of these 50 or 75 man jobs, we can't get time sheets that are correctly set up, you can readily imagine that these four people handling the business of fourteen such jobs must be busy.

We have noticed that the visitors at Casa Grande are grading high this winter for some unknown reason. Has anyone a reason to offer?

L.

As we go to press, we want to pause here long enough to thank the Engineers and Landscapers for the way they have backed us up in the rush and hurry of the last month. We have to spoof them now and again, Chief, for their own good, otherwise they wouldn't be fit to live with, for they are inclined to get the idea now and again that without them the Park Service would fall apart, whereas the Superintendents and Custodians are inclined to believe that the very strength of the Service is shown by the number of Landscapers and Engineers it can carry and still function.

Just as we have been hammering our own people two or three times in this report for wanting to tangle their paper work all up just to get to throwing dirt a few days earlier; so we have had to watch ourselves and get all the necessary clearances from these two Divisions before we could turn the Custodians loose.

We want to tell you here that they have not failed us; they have jumped their men across a state or two on telegraphic notice to clear us on some engineering or landscape problem, and they always come with a smile! In our Bull Sessions we sometimes get pretty well warmed up; an outsider might think we were peevish; but, so far at least, we have always parted good friends.

And so we want to thank them in your presence as it were for their help in getting things under way and the manner in which they have stood by in our hour of need.

Any time they feel like taking a crack at us we will be glad to furnish them space in this, which we, in a flight of fancy, call our Monthly Report.

Cordially,

The Boss.

M.

SOUTHWESTERN MONUMENTS

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